

COVER PAGE

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: MODSW846 6020A

Lab Code: R2-MAL Case No.: Jewett Case No.: SDG No.: A-1-1

SOW No.: N/A

EPA Sample No.

A-1-1
 A-1-1(D)
 A-1-1(S)
 A-1-1(L)
 A-1-2
 A-1-3
 A-2-1
 A-2-2
 A-2-3
 A-3-1
 A-3-2
 A-3-3
 A-4-1
 A-4-2
 A-4-3
 A-5-1
 A-5-2
 A-5-3
 B-1-1
 B-1-2
 B-1-3
 B-2-1
 B-2-2

A-1-1
 A-1-1(D)
 1-1-1(S)
 A-1-1(L)
 A-1-2
 A-1-3
 A-2-1
 A-2-2
 A-2-3
 A-3-1
 A-3-2
 A-3-3
 A-4-1
 A-4-2
 A-4-3
 A-5-1
 A-5-2
 A-5-3
 B-1-1
 B-1-2
 B-1-3
 B-2-1
 B-2-2

ICP-AES ICP-MS

Were ICP-AES and ICP-MS interelement corrections applied? (Yes/No) _____ No _____

Were ICP-AES and ICP-MS background corrections applied? (Yes/No) _____ No _____

If yes, were raw data generated before application of background corrections? (Yes/No) _____ No _____

Comments:

(D) = laboratory matrix duplicate sample, (S) = laboratory matrix spike sample (L) = Serial Dilution sample

STANDARD OPERATING PROCEDURE

Title: Evaluation of Metals data for the
Contract Laboratory Program

Appendix A.2: Data Assessment Narrative

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Date: Jan 1992

Number: HW2

Revision: 11

Case# Jewett1

Site Jewett Lead

Matrix Soil: 20

SDG# A-1-1

Lab U.S. EPA Region 2 Mobile Lab

Water: 00

Contractor Not Applicable

Reviewer Robert Finke

Other: 00

A.2.1 Validation Flags-

The following flags have been applied in red by the data validator
Which must be considered by the data user.

- J - This flag indicates that a result is qualified as estimated.
- UJ - This flag indicates that the analyte was analyzed but not detected
And is to be considered as estimated because it may be inaccurate
or imprecise.
- R - This flag indicates that the sample result is to be considered
unusable due to significant error and must not be used by the data
user.

Fully Usable Data -

Results which carry a "J" or "UJ" are considered to be fully usable.

Contractual Qualifiers -

The legend of the contractual qualifiers applied by the laboratory
On the Form I's are found on page B-20 of SOW ILM04.0.

A.2.2 The data assessment is given below and on the attached data sheets

This SDG (A-1-1) consists of 20 soil samples collected on December 18, 2008 from the Jewett Lead Superfund site on Staten Island, NY. The samples were prepared on December 23, 2008 and analyzed on January 23, 2009 by the U.S. EPA Region 2 Mobile Analytical Laboratory for the 22 routine Target Analyte List (TAL) metals and mercury with full Contract Laboratory Program (CLP) Quality Control (QC). This analysis was conducted according to SOP MAL-3.07A which is based upon U.S. EPA CLP SOW ILM04.0, SW-846 Method 6010A, and the U.S. EPA Region 2 DESA Laboratory protocol. Upon completion of this analysis and compiling the results, a formal validation was performed to assure the data contained in this analytical report are of appropriate quality. This being performed as part of the requirements of the Quality Assurance (QA) program put forth for the U.S. EPA Region 2 Mobile Analytical Laboratory to ensure its proper operation. This review and evaluation was carried out according to the U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review

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Title: Evaluation of Metals data for the
Contract Laboratory Program

Appendix A.2: Data Assessment Narrative

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And U.S. EPA Region 2 Data Validation SOP *Evaluation of Metals Data for the Contract Laboratory Program (CLP) based on SOW. 3/90, Rev. XI.* It applies to a systematic approach for examining analytical results to identify and assess the indication of bias to render an overall determination of data usability. In doing so, the data user is assured as to how well a given set of analytical results will conform to the established environmental monitoring performance criteria defined for their project. In accordance, the following qualifications are applied to this data set which must be considered when utilizing these results to make sound environmental decisions.

1. Calibration

The results of an Initial Calibration Verification (ICV) determination yielded a recovery which was not within the specified control limits of 90 - 110%R. This requires that the associated results be qualified as estimated "J" or rejected "R" in the affected environmental samples resulting in the following required action(s.)

Element	%R	Qualification	Sample(s) Qualified
Silver	55.5	R	A-1-1, A-1-2

The results of an Continuing Calibration Verification (CCV) determination yielded recoveries which were not within the specified control limits of 90-110%R. This requires that the associated results be qualified as estimated "J" in the affected environmental samples, resulting in the following required action(s.)

Element	%R	Qualification	Sample(s) Qualified
Nickel (CCV-1)	88.3	J	A-1-1, A-1-2, A-1-3, A-2-1, A-2-2, A-2-3, A-3-1, A-3-2
Nickel (CCV-2)	87.1	J	A-4-1, A-4-2, A-4-3, A-5-1, A-5-2, A-5-3, B-1-1, B-1-2, B-1-3
All Elements*		J	B-2-2, B-2-1, B-1-3, B-1-2, B-1-1

* A CCV-3 was not analyzed, therefore, all elements in the last five samples have been qualified estimated "J"

2. Laboratory Control Sample

The Laboratory Control Sample (LCS) "found" value for silver was greater than the upper acceptable range and has therefore been qualified estimated "J" in all samples contained in this SDG. The Laboratory Control Sample (LCS) "found" value for beryllium and nickel were lower than the lower acceptable range and have therefore been qualified estimated "J" in all samples contained in this samples contained in this SDG.

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3. Matrix Spike

The matrix spike recovery of silver was greater than 125% but less than 200 percent. Therefore, all positive (not flagged with a "U") silver data not previously qualified has been qualified estimated "J".

4. Serial Dilution

The serial dilution result was greater than 10 percent different than the non-diluted sample for chromium, selenium, antimony, mercury, and thallium. All results for these elements were greater than ten times the IDL and have therefore been qualified estimated "J" in all samples contained in this SDG.

5. Percent Solids

Samples A-2-2 and A-2-3 possessed less than 50% solids. All elements in those samples have therefore been qualified estimated "J"

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-1-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil

Lab Sample ID: A-1-1

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 79.9

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9290.00			MS
7440-36-0	Antimony	1.92	B	J	MS
7440-38-2	Arsenic	7.35			MS
7440-39-3	Barium	285.00			MS
7440-41-7	Beryllium	0.42	B	J	MS
7440-43-9	Cadmium	1.08			MS
7440-70-2	Calcium	5220.00			MS
7440-47-3	Chromium	28.40		J	MS
7440-48-4	Cobalt	7.55			MS
7440-50-8	Copper	70.80			MS
7439-89-6	Iron	14500.00			MS
7439-92-1	Lead	47700.00			MS
7439-95-4	Magnesium	18100.00			MS
7439-96-5	Manganese	899.00			MS
7439-97-6	Mercury	0.52		J	MS
7440-02-0	Nickel	58.00		J	MS
7440-09-7	Potassium	1005.00			MS
7782-49-2	Selenium	1.36	B	J	MS
7440-22-4	Silver	0.68	B	R	MS
7440-23-5	Sodium	516.00			MS
7440-28-0	Thallium	0.40	B	J	MS
7440-62-2	Vanadium	24.10			MS
7440-66-6	Zinc	183.00			MS

Color Before: Brown

Clarity Before: N/A - Soil Texture:

Color After: Yellow

Clarity After: Clear

Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-1-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-1-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 81.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8560.00			MS
7440-36-0	Antimony	1.66	B	J	MS
7440-38-2	Arsenic	15.00			MS
7440-39-3	Barium	260.00			MS
7440-41-7	Beryllium	0.41	B	J	MS
7440-43-9	Cadmium	0.78			MS
7440-70-2	Calcium	32500.00			MS
7440-47-3	Chromium	33.00		J	MS
7440-48-4	Cobalt	9.08			MS
7440-50-8	Copper	91.60			MS
7439-89-6	Iron	17500.00			MS
7439-92-1	Lead	17600.00			MS
7439-95-4	Magnesium	11400.00			MS
7439-96-5	Manganese	841.00			MS
7439-97-6	Mercury	0.34		J	MS
7440-02-0	Nickel	78.80		J	MS
7440-09-7	Potassium	973.00			MS
7782-49-2	Selenium	0.85	B	J	MS
7440-22-4	Silver	0.56	B	R	MS
7440-23-5	Sodium	311.00	B		MS
7440-28-0	Thallium	0.27	B	J	MS
7440-62-2	Vanadium	26.20			MS
7440-66-6	Zinc	179.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-1-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAI Case No.: Jewett1 NRAS No.: _____ SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-1-3

Level: (low/med) Low Date Received: 12/18/08

% Solids: 84.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11100.00			MS
7440-36-0	Antimony	0.01	U	J	MS
7440-38-2	Arsenic	9.37			MS
7440-39-3	Barium	36.50			MS
7440-41-7	Beryllium	0.69		J	MS
7440-43-9	Cadmium	0.03			MS
7440-70-2	Calcium	2620.00			MS
7440-47-3	Chromium	26.00		J	MS
7440-48-4	Cobalt	5.18			MS
7440-50-8	Copper	13.10			MS
7439-89-6	Iron	24900.00			MS
7439-92-1	Lead	42.90			MS
7439-95-4	Magnesium	2110.00			MS
7439-96-5	Manganese	187.00			MS
7439-97-6	Mercury	0.08		J	MS
7440-02-0	Nickel	12.90		J	MS
7440-09-7	Potassium	1760.00			MS
7782-49-2	Selenium	0.17	B	J	MS
7440-22-4	Silver	0.02	B	J	MS
7440-23-5	Sodium	208.00	B		MS
7440-28-0	Thallium	0.17	B	J	MS
7440-62-2	Vanadium	40.90			MS
7440-66-6	Zinc	45.70			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-2-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-2-1

Level: (low/med) Low Date Received: 12/18/08

% Solids: 69.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6250.00			MS
7440-36-0	Antimony	2.68	B	J	MS
7440-38-2	Arsenic	5.67			MS
7440-39-3	Barium	540.00			MS
7440-41-7	Beryllium	0.28	B	J	MS
7440-43-9	Cadmium	1.50			MS
7440-70-2	Calcium	62500.00			MS
7440-47-3	Chromium	12.50		J	MS
7440-48-4	Cobalt	5.55			MS
7440-50-8	Copper	92.40			MS
7439-89-6	Iron	11700.00			MS
7439-92-1	Lead	55500.00			MS
7439-95-4	Magnesium	15020.00			MS
7439-96-5	Manganese	1030.00			MS
7439-97-6	Mercury	0.34		J	MS
7440-02-0	Nickel	34.50		J	MS
7440-09-7	Potassium	678.00			MS
7782-49-2	Selenium	1.24	B	J	MS
7440-22-4	Silver	1.04		J	MS
7440-23-5	Sodium	384.00	B		MS
7440-28-0	Thallium	0.24	B	J	MS
7440-62-2	Vanadium	17.60			MS
7440-66-6	Zinc	140.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

INORGANIC ANALYSIS DATA SHEET

A-2-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-2-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 41.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3410.00		J	MS
7440-36-0	Antimony	5.51	B	J	MS
7440-38-2	Arsenic	3.87		J	MS
7440-39-3	Barium	1170.00		J	MS
7440-41-7	Beryllium	0.04	B	J	MS
7440-43-9	Cadmium	4.61		J	MS
7440-70-2	Calcium	226000.00		J	MS
7440-47-3	Chromium	17.30		J	MS
7440-48-4	Cobalt	4.35		J	MS
7440-50-8	Copper	135.00		J	MS
7439-89-6	Iron	7210.00		J	MS
7439-92-1	Lead	130,000.00		J	MS
7439-95-4	Magnesium	4940.00		J	MS
7439-96-5	Manganese	6250.00		J	MS
7439-97-6	Mercury	1.15		J	MS
7440-02-0	Nickel	35.30		J	MS
7440-09-7	Potassium	482.00		J	MS
7782-49-2	Selenium	1.55	B	J	MS
7440-22-4	Silver	3.02		J	MS
7440-23-5	Sodium	591.00		J	MS
7440-28-0	Thallium	0.37	B	J	MS
7440-62-2	Vanadium	4.93		J	MS
7440-66-6	Zinc	247.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)**U** - Undetected value < the Instrument Detection Limit (IDL)**J** - Estimated concentration due to data validation criteria.**R** - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-2-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-2-3

Level: (low/med) Low Date Received: 12/18/08

% Solids: 42.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4190.00	J		MS
7440-36-0	Antimony	7.68	J		MS
7440-38-2	Arsenic	2.81	J		MS
7440-39-3	Barium	1220.00	J		MS
7440-41-7	Beryllium	0.11	B	J	MS
7440-43-9	Cadmium	4.77	J		MS
7440-70-2	Calcium	213000.00	J		MS
7440-47-3	Chromium	13.50	J		MS
7440-48-4	Cobalt	5.12	J		MS
7440-50-8	Copper	87.00	J		MS
7439-89-6	Iron	7760.00	J		MS
7439-92-1	Lead	98700.00	J		MS
7439-95-4	Magnesium	3830.00	J		MS
7439-96-5	Manganese	3980.00	J		MS
7439-97-6	Mercury	1.67	J		MS
7440-02-0	Nickel	42.40	J		MS
7440-09-7	Potassium	681.00	J		MS
7782-49-2	Selenium	1.14	B	J	MS
7440-22-4	Silver	2.21	J		MS
7440-23-5	Sodium	717.00	J		MS
7440-28-0	Thallium	0.49	B	J	MS
7440-62-2	Vanadium	8.58	J		MS
7440-66-6	Zinc	307.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-3-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-3-1

Level: (low/med) Low Date Received: 12/18/08

% Solids: 90.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12900.00			MS
7440-36-0	Antimony	0.24	B	J	MS
7440-38-2	Arsenic	6.35			MS
7440-39-3	Barium	86.40			MS
7440-41-7	Beryllium	0.37	B	J	MS
7440-43-9	Cadmium	0.17			MS
7440-70-2	Calcium	1600.00			MS
7440-47-3	Chromium	52.60		J	MS
7440-48-4	Cobalt	10.90			MS
7440-50-8	Copper	41.90			MS
7439-89-6	Iron	21400.00			MS
7439-92-1	Lead	80.10			MS
7439-95-4	Magnesium	2890.00			MS
7439-96-5	Manganese	437.00			MS
7439-97-6	Mercury	0.09		J	MS
7440-02-0	Nickel	68.30		J	MS
7440-09-7	Potassium	1080.00			MS
7782-49-2	Selenium	0.59	B	J	MS
7440-22-4	Silver	0.28	B	J	MS
7440-23-5	Sodium	232.00	B		MS
7440-28-0	Thallium	0.19	B	J	MS
7440-62-2	Vanadium	30.90			MS
7440-66-6	Zinc	59.40			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-3-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MA1 Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-3-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 89.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7404.00			MS
7440-36-0	Antimony	0.17	B	J	MS
7440-38-2	Arsenic	5.49			MS
7440-39-3	Barium	31.20			MS
7440-41-7	Beryllium	0.35	B	J	MS
7440-43-9	Cadmium	0.18			MS
7440-70-2	Calcium	3340.00			MS
7440-47-3	Chromium	44.60		J	MS
7440-48-4	Cobalt	6.84			MS
7440-50-8	Copper	18.70			MS
7439-89-6	Iron	13900.00			MS
7439-92-1	Lead	541.00			MS
7439-95-4	Magnesium	2440.00			MS
7439-96-5	Manganese	166.00			MS
7439-97-6	Mercury	0.06		J	MS
7440-02-0	Nickel	44.50		J	MS
7440-09-7	Potassium	762.00			MS
7782-49-2	Selenium	0.23	B	J	MS
7440-22-4	Silver	0.02	B	J	MS
7440-23-5	Sodium	111.00	B		MS
7440-28-0	Thallium	0.10	B	J	MS
7440-62-2	Vanadium	18.70			MS
7440-66-6	Zinc	68.20			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-3-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil

Lab Sample ID: A-3-3

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 86.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7430.00			MS
7440-36-0	Antimony	0.01	U	J	MS
7440-38-2	Arsenic	4.74			MS
7440-39-3	Barium	22.30			MS
7440-41-7	Beryllium	0.30	B	J	MS
7440-43-9	Cadmium	0.10			MS
7440-70-2	Calcium	1018.00			MS
7440-47-3	Chromium	41.80		J	MS
7440-48-4	Cobalt	5.68			MS
7440-50-8	Copper	33.90			MS
7439-89-6	Iron	13300.00			MS
7439-92-1	Lead	56.50			MS
7439-95-4	Magnesium	2370.00			MS
7439-96-5	Manganese	127.00			MS
7439-97-6	Mercury	0.04		J	MS
7440-02-0	Nickel	28.10		J	MS
7440-09-7	Potassium	669.00			MS
7782-49-2	Selenium	0.09	B	J	MS
7440-22-4	Silver	0.01	B	J	MS
7440-23-5	Sodium	83.90	B		MS
7440-28-0	Thallium	0.07	B	J	MS
7440-62-2	Vanadium	15.60			MS
7440-66-6	Zinc	58.50			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-4-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil

Lab Sample ID: A-4-1

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 81.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7630.00			MS
7440-36-0	Antimony	3.42	B	J	MS
7440-38-2	Arsenic	6.57			MS
7440-39-3	Barium	311.00			MS
7440-41-7	Beryllium	0.39	B	J	MS
7440-43-9	Cadmium	1.59			MS
7440-70-2	Calcium	65100.00			MS
7440-47-3	Chromium	53.20		J	MS
7440-48-4	Cobalt	5.15			MS
7440-50-8	Copper	84.00			MS
7439-89-6	Iron	13200.00			MS
7439-92-1	Lead	26200.00			MS
7439-95-4	Magnesium	9920.00			MS
7439-96-5	Manganese	746.00			MS
7439-97-6	Mercury	0.43		J	MS
7440-02-0	Nickel	29.20		J	MS
7440-09-7	Potassium	901.00			MS
7782-49-2	Selenium	0.63	B	J	MS
7440-22-4	Silver	0.56	B	J	MS
7440-23-5	Sodium	397.00	B		MS
7440-28-0	Thallium	0.12	B	J	MS
7440-62-2	Vanadium	19.50			MS
7440-66-6	Zinc	305.00			MS

Color Before: Brown

Clarity Before: N/A - Soil Texture:

Color After: Yellow

Clarity After: Clear

Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-4-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil

Lab Sample ID: A-4-2

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 72.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5870.00			MS
7440-36-0	Antimony	3.79	B	J	MS
7440-38-2	Arsenic	14.90			MS
7440-39-3	Barium	667.00			MS
7440-41-7	Beryllium	0.17	B	J	MS
7440-43-9	Cadmium	2.45			MS
7440-70-2	Calcium	91300.00			MS
7440-47-3	Chromium	19.40		J	MS
7440-48-4	Cobalt	4.76			MS
7440-50-8	Copper	102.00			MS
7439-89-6	Iron	9920.00			MS
7439-92-1	Lead	62700.00			MS
7439-95-4	Magnesium	5740.00			MS
7439-96-5	Manganese	1300.00			MS
7439-97-6	Mercury	0.53		J	MS
7440-02-0	Nickel	32.00		J	MS
7440-09-7	Potassium	763.00			MS
7782-49-2	Selenium	0.67	B	J	MS
7440-22-4	Silver	1.31	B	J	MS
7440-23-5	Sodium	477.00	B		MS
7440-28-0	Thallium	0.16	B	J	MS
7440-62-2	Vanadium	12.20			MS
7440-66-6	Zinc	275.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-4-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-4-3

Level: (low/med) Low Date Received: 12/18/08

% Solids: 52.5

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1820.00			MS
7440-36-0	Antimony	5.43	B	J	MS
7440-38-2	Arsenic	6.90			MS
7440-39-3	Barium	1150.00			MS
7440-41-7	Beryllium	0.07	B	J	MS
7440-43-9	Cadmium	2.67			MS
7440-70-2	Calcium	175000.00			MS
7440-47-3	Chromium	12.50		J	MS
7440-48-4	Cobalt	2.67			MS
7440-50-8	Copper	109.00			MS
7439-89-6	Iron	6270.00			MS
7439-92-1	Lead	105000.00			MS
7439-95-4	Magnesium	2820.00			MS
7439-96-5	Manganese	2290.00			MS
7439-97-6	Mercury	0.96		J	MS
7440-02-0	Nickel	6.09		J	MS
7440-09-7	Potassium	557.00			MS
7782-49-2	Selenium	0.80	B	J	MS
7440-22-4	Silver	2.05	B	J	MS
7440-23-5	Sodium	394.00	B		MS
7440-28-0	Thallium	0.53	B	J	MS
7440-62-2	Vanadium	2.83			MS
7440-66-6	Zinc	142.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-5-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-5-1

Level: (low/med) Low Date Received: 12/18/08

% Solids: 81.2

Concentration Units (µg/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8830.00			MS
7440-36-0	Antimony	4.53	B	J	MS
7440-38-2	Arsenic	7.86			MS
7440-39-3	Barium	360.00			MS
7440-41-7	Beryllium	0.42	B	J	MS
7440-43-9	Cadmium	1.73			MS
7440-70-2	Calcium	49700.00			MS
7440-47-3	Chromium	33.60		J	MS
7440-48-4	Cobalt	11.20			MS
7440-50-8	Copper	317.00			MS
7439-89-6	Iron	17500.00			MS
7439-92-1	Lead	28500.00			MS
7439-95-4	Magnesium	8709.00			MS
7439-96-5	Manganese	850.00			MS
7439-97-6	Mercury	0.53		J	MS
7440-02-0	Nickel	72.90		J	MS
7440-09-7	Potassium	1038.00			MS
7782-49-2	Selenium	0.76	B	J	MS
7440-22-4	Silver	0.84	B	J	MS
7440-23-5	Sodium	370.00	B		MS
7440-28-0	Thallium	0.16	B	J	MS
7440-62-2	Vanadium	22.80			MS
7440-66-6	Zinc	636.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-5-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: A-1-1

Matrix: (soil/water) Soil

Lab Sample ID: A-5-2

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 84.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8260.00			MS
7440-36-0	Antimony	0.46	B	J	MS
7440-38-2	Arsenic	13.40			MS
7440-39-3	Barium	390.00			MS
7440-41-7	Beryllium	0.60		J	MS
7440-43-9	Cadmium	1.17			MS
7440-70-2	Calcium	38700.00			MS
7440-47-3	Chromium	21.60		J	MS
7440-48-4	Cobalt	8.24			MS
7440-50-8	Copper	55.90			MS
7439-89-6	Iron	17500.00			MS
7439-92-1	Lead	3440.00			MS
7439-95-4	Magnesium	4080.00			MS
7439-96-5	Manganese	256.00			MS
7439-97-6	Mercury	0.35		J	MS
7440-02-0	Nickel	26.40		J	MS
7440-09-7	Potassium	1050.00			MS
7782-49-2	Selenium	0.75	B	J	MS
7440-22-4	Silver	0.22	B	J	MS
7440-23-5	Sodium	286.00	B		MS
7440-28-0	Thallium	0.18	B	J	MS
7440-62-2	Vanadium	23.80			MS
7440-66-6	Zinc	417.00			MS

Color Before: Brown

Clarity Before: N/A - Soil Texture: _____

Color After: Yellow

Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-5-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: A-5-3

Level: (low/med) Low Date Received: 12/18/08

% Solids: 61.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3890.00			MS
7440-36-0	Antimony	10.70	J		MS
7440-38-2	Arsenic	10.40			MS
7440-39-3	Barium	947.00			MS
7440-41-7	Beryllium	0.25	B	J	MS
7440-43-9	Cadmium	2.43			MS
7440-70-2	Calcium	104000.00			MS
7440-47-3	Chromium	12.80	J		MS
7440-48-4	Cobalt	4.16			MS
7440-50-8	Copper	264.00			MS
7439-89-6	Iron	15800.00			MS
7439-92-1	Lead	90900.00			MS
7439-95-4	Magnesium	3020.00			MS
7439-96-5	Manganese	1860.00			MS
7439-97-6	Mercury	0.57	J		MS
7440-02-0	Nickel	22.20	J		MS
7440-09-7	Potassium	699.00			MS
7782-49-2	Selenium	1.28	B	J	MS
7440-22-4	Silver	1.71	B	J	MS
7440-23-5	Sodium	426.00	B		MS
7440-28-0	Thallium	0.29	B	J	MS
7440-62-2	Vanadium	12.20			MS
7440-66-6	Zinc	315.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil

Lab Sample ID: B-1-1

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 86.3

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8270.00			MS
7440-36-0	Antimony	0.52	B	J	MS
7440-38-2	Arsenic	9.71			MS
7440-39-3	Barium	100.00			MS
7440-41-7	Beryllium	0.57		J	MS
7440-43-9	Cadmium	0.40			MS
7440-70-2	Calcium	13400.00			MS
7440-47-3	Chromium	16.30		J	MS
7440-48-4	Cobalt	7.53			MS
7440-50-8	Copper	59.10			MS
7439-89-6	Iron	20400.00			MS
7439-92-1	Lead	8390.00			MS
7439-95-4	Magnesium	4710.00			MS
7439-96-5	Manganese	420.00			MS
7439-97-6	Mercury	0.14		J	MS
7440-02-0	Nickel	22.30		J	MS
7440-09-7	Potassium	939.00			MS
7782-49-2	Selenium	1.39	B	J	MS
7440-22-4	Silver	0.28	B	R	MS
7440-23-5	Sodium	315.00	B		MS
7440-28-0	Thallium	0.38	B	J	MS
7440-62-2	Vanadium	26.30			MS
7440-66-6	Zinc	106.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: B-1-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 80.8

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7410.00			MS
7440-36-0	Antimony	2.82	B	J	MS
7440-38-2	Arsenic	47.40			MS
7440-39-3	Barium	290.00			MS
7440-41-7	Beryllium	0.65		J	MS
7440-43-9	Cadmium	1.74			MS
7440-70-2	Calcium	22900.00			MS
7440-47-3	Chromium	30.60		J	MS
7440-48-4	Cobalt	11.40			MS
7440-50-8	Copper	189.00			MS
7439-89-6	Iron	17200.00			MS
7439-92-1	Lead	13400.00			MS
7439-95-4	Magnesium	8029.00			MS
7439-96-5	Manganese	647.00			MS
7439-97-6	Mercury	0.25		J	MS
7440-02-0	Nickel	79.40		J	MS
7440-09-7	Potassium	855.00			MS
7782-49-2	Selenium	1.45	B	J	MS
7440-22-4	Silver	0.95	B	R	MS
7440-23-5	Sodium	441.00	B		MS
7440-28-0	Thallium	0.21	B	J	MS
7440-62-2	Vanadium	37.60			MS
7440-66-6	Zinc	437.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: B-1-3

Level: (low/med) Low Date Received: 12/18/08

% Solids: 83.9

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9840.00			MS
7440-36-0	Antimony	0.05	U	J	MS
7440-38-2	Arsenic	4.95			MS
7440-39-3	Barium	60.10			MS
7440-41-7	Beryllium	0.70		J	MS
7440-43-9	Cadmium	0.06			MS
7440-70-2	Calcium	10300.00			MS
7440-47-3	Chromium	30.40		J	MS
7440-48-4	Cobalt	7.50			MS
7440-50-8	Copper	13.00			MS
7439-89-6	Iron	19700.00			MS
7439-92-1	Lead	333.00			MS
7439-95-4	Magnesium	3220.00			MS
7439-96-5	Manganese	280.00			MS
7439-97-6	Mercury	0.09		J	MS
7440-02-0	Nickel	26.90		J	MS
7440-09-7	Potassium	1390.00			MS
7782-49-2	Selenium	0.37	B	J	MS
7440-22-4	Silver	0.07	B	R	MS
7440-23-5	Sodium	393.00	B		MS
7440-28-0	Thallium	0.13	B	J	MS
7440-62-2	Vanadium	36.30			MS
7440-66-6	Zinc	43.80			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: B-2-1

Level: (low/med) Low Date Received: 12/18/08

% Solids: 68.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6370.00			MS
7440-36-0	Antimony	0.97	B	J	MS
7440-38-2	Arsenic	2.92			MS
7440-39-3	Barium	815.00			MS
7440-41-7	Beryllium	0.56		J	MS
7440-43-9	Cadmium	1.52			MS
7440-70-2	Calcium	54000.00			MS
7440-47-3	Chromium	108.00		J	MS
7440-48-4	Cobalt	74.60			MS
7440-50-8	Copper	212.00			MS
7439-89-6	Iron	36300.00			MS
7439-92-1	Lead	69300.00			MS
7439-95-4	Magnesium	45100.00			MS
7439-96-5	Manganese	3370.00			MS
7439-97-6	Mercury	1.18		J	MS
7440-02-0	Nickel	1220.00		J	MS
7440-09-7	Potassium	303.00			MS
7782-49-2	Selenium	0.85	B	J	MS
7440-22-4	Silver	4.13	B	R	MS
7440-23-5	Sodium	446.00	B		MS
7440-28-0	Thallium	0.20	B	J	MS
7440-62-2	Vanadium	13.10			MS
7440-66-6	Zinc	184.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-1-1

Matrix: (soil/water) Soil Lab Sample ID: B-2-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 50.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2330.00			MS
7440-36-0	Antimony	5.53	B	J	MS
7440-38-2	Arsenic	5.21			MS
7440-39-3	Barium	1570.00			MS
7440-41-7	Beryllium	0.15	B	J	MS
7440-43-9	Cadmium	3.76			MS
7440-70-2	Calcium	141000.00			MS
7440-47-3	Chromium	17.70		J	MS
7440-48-4	Cobalt	8.18			MS
7440-50-8	Copper	261.00			MS
7439-89-6	Iron	10050.00			MS
7439-92-1	Lead	145000.00			MS
7439-95-4	Magnesium	14900.00			MS
7439-96-5	Manganese	3300.00			MS
7439-97-6	Mercury	1.35		J	MS
7440-02-0	Nickel	118.00		J	MS
7440-09-7	Potassium	337.00			MS
7782-49-2	Selenium	1.70	B	J	MS
7440-22-4	Silver	2.34	B	R	MS
7440-23-5	Sodium	682.00			MS
7440-28-0	Thallium	0.24	B	J	MS
7440-62-2	Vanadium	5.58			MS
7440-66-6	Zinc	191.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA

COVER PAGE

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method:MODSW846 6020A

Lab Code: R2-MAL Case No.:Jewett1 NRAS No.: _____ SDG No.:B-2-3

SOW No.: N/A

EPA Sample No.	Lab Sample ID
B-2-3	B-2-3
B-3-1	B-3-1
B-3-2	B-3-2
B-3-3	B-3-3
B-4-1	B-4-1
B-4-2	B-4-2
B-4-3	B-4-3
B-4-3(D)	B-4-3(D)
B-4-3(S)	B-4-3(S)
B-4-3(L)	B-4-3(L)
C-1-1	C-1-1
C-1-2	C-1-2
C-1-3	C-1-3
C-2-1	C-2-1
C-2-2	C-2-2
C-2-3	C-2-3
C-3-1	C-3-1
C-3-3	C-3-3
D-1-1	D-1-1
D-1-2	D-1-2
D-1-3	D-1-3
D-2-1	D-2-1

Were ICP-AES and ICP-MS interelement corrections applied? (Yes/No) _____ No _____

Were ICP-AES and ICP-MS background corrections applied? (Yes/No) _____ No _____

If yes, were raw data generated before application of background corrections? (Yes/No) _____ No _____

Comments:

(D) = laboratory matrix duplicate sample, (S) = laboratory matrix spike sample (L) = Serial Dilution sample

STANDARD OPERATING PROCEDURE

Title: Evaluation of Metals data for the
Contract Laboratory Program
Appendix A.2: Data Assessment Narrative

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Case# <u>Jewett1</u>	Site <u>Jewett Lead</u>	Matrix Soil: <u>19</u>
SDG# <u>B-2-3</u>	Lab <u>U.S. EPA Region 2 Mobile Lab</u>	Water: <u>00</u>
Contractor <u>Not Applicable</u>	Reviewer <u>Robert Finke</u>	Other: <u>00</u>

A.2.1 Validation Flags-

The following flags have been applied in red by the data validator
Which must be considered by the data user.

- J - This flag indicates that a result is qualified as estimated.
- UJ - This flag indicates that the analyte was analyzed but not detected
And is to be considered as estimated because it may be inaccurate
or imprecise.
- R - This flag indicates that the sample result is to be considered
unusable due to significant error and must not be used by the data
user.

Fully Usable Data -

Results which carry a "J" or "UJ" are considered to be fully usable.

Contractual Qualifiers -

The legend of the contractual qualifiers applied by the laboratory
On the Form I's are found on page B-20 of SOW ILM04.0.

A.2.2 The data assessment is given below and on the attached data sheets

This SDG (B-2-3) consists of 19 soil samples collected on December 18, 2008 from the Jewett Lead Superfund site on Staten Island, NY. The samples were prepared on December 23, 2008 and analyzed on January 23, 2009 by the U.S. EPA Region 2 Mobile Analytical Laboratory for the 22 routine Target Analyte List (TAL) metals and mercury with full Contract Laboratory Program (CLP) Quality Control (QC). This analysis was conducted according to SOP MAL-3.07A which is based upon U.S. EPA CLP SOW ILM04.0, SW-846 Method 6010A, and the U.S. EPA Region 2 DESA Laboratory protocol. Upon completion of this analysis and compiling the results, a formal validation was performed to assure the data contained in this analytical report are of appropriate quality. This being performed as part of the requirements of the Quality Assurance (QA) program put forth for the U.S. EPA Region 2 Mobile Analytical Laboratory to ensure its proper operation. This review and evaluation was carried out according to the U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review

STANDARD OPERATING PROCEDURE

Title: Evaluation of Metals data for the
Contract Laboratory Program
Appendix A.2: Data Assessment Narrative

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And U.S. EPA Region 2 Data Validation SOP *Evaluation of Metals Data for the Contract Laboratory Program (CLP) based on SOW, 3/90, Rev. XI.* It applies to a systematic approach for examining analytical results to identify and assess the indication of bias to render an overall determination of data usability. In doing so, the data user is assured as to how well a given set of analytical results will conform to the established environmental monitoring performance criteria defined for their project. In accordance, the following qualifications are applied to this data set which must be considered when utilizing these results to make sound environmental decisions.

1. Laboratory Control Sample

The Laboratory Control Sample (LCS) "found" value for **nickel and lead** were greater than the upper acceptable range and have therefore been qualified estimated "J" in all samples contained in this SDG. The Laboratory Control Sample (LCS) "found" value for **arsenic and zinc** were lower than the lower acceptable range and have therefore been qualified estimated "J" in all samples contained in this samples contained in this SDG.

2. Matrix Spike

The matrix spike recovery of **antimony** was between 10-74%. Therefore, all antimony data contained in this SDG has been qualified estimated "J".

3. Serial Dilution

The serial dilution result was greater than 10 percent different than the non-diluted sample for **beryllium, sodium, aluminum, vanadium, manganese, nickel, copper, zinc, silver, cadmium, antimony, and thallium**. All results for these elements were greater than ten times the IDL and have therefore been qualified estimated "J" in all samples contained in this SDG.

4. Percent Solids

Samples B-2-3, C-2-1, C-2-3, C-3-2, and C-3-3, possessed less than 50% solids. All elements in those samples have therefore been qualified estimated "J"

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1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: B-2-3

Level: (low/med) Low Date Received: 12/18/08

% Solids: 43.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2020.00	J		MS
7440-36-0	Antimony	5.47	B	J	MS
7440-38-2	Arsenic	3.48		J	MS
7440-39-3	Barium	1250.00		J	MS
7440-41-7	Beryllium	0.26	B	J	MS
7440-43-9	Cadmium	4.18		J	MS
7440-70-2	Calcium	227000.00		J	MS
7440-47-3	Chromium	20.40		J	MS
7440-48-4	Cobalt	4660.00		J	MS
7440-50-8	Copper	127.00		J	MS
7439-89-6	Iron	6790.00		J	MS
7439-92-1	Lead	160000.00		J	MS
7439-95-4	Magnesium	9960.00		J	MS
7439-96-5	Manganese	4380.00		J	MS
7439-97-6	Mercury	1.18		J	MS
7440-02-0	Nickel	91.60		J	MS
7440-09-7	Potassium	276.00		J	MS
7782-49-2	Selenium	0.89	B	J	MS
7440-22-4	Silver	3.83	B	J	MS
7440-23-5	Sodium	739.00		J	MS
7440-28-0	Thallium	0.62	B	J	MS
7440-62-2	Vanadium	4.53		J	MS
7440-66-6	Zinc	206.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
LA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-3-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: B-3-1

Level: (low/med) Low Date Received: 12/18/08

% Solids: 86.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7110.00	J		MS
7440-36-0	Antimony	1.07	B	J	MS
7440-38-2	Arsenic	6.80	J		MS
7440-39-3	Barium	207.00			MS
7440-41-7	Beryllium	0.50	B	J	MS
7440-43-9	Cadmium	1.20	J		MS
7440-70-2	Calcium	53080.00			MS
7440-47-3	Chromium	26.20			MS
7440-48-4	Cobalt	7.88			MS
7440-50-8	Copper	80.40	J		MS
7439-89-6	Iron	13600.00			MS
7439-92-1	Lead	10300.00	J		MS
7439-95-4	Magnesium	17600.00			MS
7439-96-5	Manganese	448.00	J		MS
7439-97-6	Mercury	0.65			MS
7440-02-0	Nickel	113.00	J		MS
7440-09-7	Potassium	873.00			MS
7782-49-2	Selenium	0.72	B		MS
7440-22-4	Silver	0.46	B	J	MS
7440-23-5	Sodium	430.00	B	J	MS
7440-28-0	Thallium	0.22	B	J	MS
7440-62-2	Vanadium	20.20	J		MS
7440-66-6	Zinc	322.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-3-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: B-3-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 56.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4740.00	J		MS
7440-36-0	Antimony	6.24	B	J	MS
7440-38-2	Arsenic	6.79	J		MS
7440-39-3	Barium	1480.00			MS
7440-41-7	Beryllium	0.52	J		MS
7440-43-9	Cadmium	3.71	J		MS
7440-70-2	Calcium	150000.00			MS
7440-47-3	Chromium	28.60			MS
7440-48-4	Cobalt	16.00			MS
7440-50-8	Copper	160.00	J		MS
7439-89-6	Iron	16400.00			MS
7439-92-1	Lead	123000.00	J		MS
7439-95-4	Magnesium	13600.00			MS
7439-96-5	Manganese	4020.00	J		MS
7439-97-6	Mercury	0.84			MS
7440-02-0	Nickel	490.00	J		MS
7440-09-7	Potassium	589.00			MS
7782-49-2	Selenium	1.37	B		MS
7440-22-4	Silver	4.17	B	J	MS
7440-23-5	Sodium	690.00	J		MS
7440-28-0	Thallium	0.60	B	J	MS
7440-62-2	Vanadium	11.80	J		MS
7440-66-6	Zinc	243.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria:

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-3-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

- Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil

Lab Sample ID: B-3-3

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 61.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5470.00	J		MS
7440-36-0	Antimony	7.00	J		MS
7440-38-2	Arsenic	15.00	J		MS
7440-39-3	Barium	1280.00			MS
7440-41-7	Beryllium	1.16	J		MS
7440-43-9	Cadmium	2.76	J		MS
7440-70-2	Calcium	171000.00			MS
7440-47-3	Chromium	22.80			MS
7440-48-4	Cobalt	6.48			MS
7440-50-8	Copper	245.00	J		MS
7439-89-6	Iron	11900.00			MS
7439-92-1	Lead	100700.00	J		MS
7439-95-4	Magnesium	6090.00			MS
7439-96-5	Manganese	7900.00	J		MS
7439-97-6	Mercury	1.42			MS
7440-02-0	Nickel	302.00	J		MS
7440-09-7	Potassium	735.00			MS
7782-49-2	Selenium	2.02	B		MS
7440-22-4	Silver	3.03	B	J	MS
7440-23-5	Sodium	921.00	J		MS
7440-28-0	Thallium	0.31	B	J	MS
7440-62-2	Vanadium	7.71	J		MS
7440-66-6	Zinc	180.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-4-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil

Lab Sample ID: B-4-1

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 84.1

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7042.00	J		MS
7440-36-0	Antimony	1.37	B	J	MS
7440-38-2	Arsenic	5.31		J	MS
7440-39-3	Barium	236.00			MS
7440-41-7	Beryllium	0.45	B	J	MS
7440-43-9	Cadmium	1.41		J	MS
7440-70-2	Calcium	49900.00			MS
7440-47-3	Chromium	15.20			MS
7440-48-4	Cobalt	5.61			MS
7440-50-8	Copper	94.60		J	MS
7439-89-6	Iron	12500.00			MS
7439-92-1	Lead	17300.00		J	MS
7439-95-4	Magnesium	8940.00			MS
7439-96-5	Manganese	505.00		J	MS
7439-97-6	Mercury	0.46			MS
7440-02-0	Nickel	43.90		J	MS
7440-09-7	Potassium	1980.00			MS
7782-49-2	Selenium	0.23	B		MS
7440-22-4	Silver	0.56	B	J	MS
7440-23-5	Sodium	410.00	B	J	MS
7440-28-0	Thallium	0.13	B	J	MS
7440-62-2	Vanadium	18.90		J	MS
7440-66-6	Zinc	376.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
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EPA SAMPLE NO.

B-4-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: B-4-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 72.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7550.00	J		MS
7440-36-0	Antimony	0.77	B	J	MS
7440-38-2	Arsenic	6.27		J	MS
7440-39-3	Barium	181.00			MS
7440-41-7	Beryllium	0.51		J	MS
7440-43-9	Cadmium	2.25		J	MS
7440-70-2	Calcium	81100.00			MS
7440-47-3	Chromium	22.40			MS
7440-48-4	Cobalt	5.46			MS
7440-50-8	Copper	118.00		J	MS
7439-89-6	Iron	12700.00			MS
7439-92-1	Lead	8870.00		J	MS
7439-95-4	Magnesium	8840.00			MS
7439-96-5	Manganese	365.00		J	MS
7439-97-6	Mercury	0.55			MS
7440-02-0	Nickel	41.50		J	MS
7440-09-7	Potassium	1020.00			MS
7782-49-2	Selenium	0.20	B		MS
7440-22-4	Silver	0.33	B	J	MS
7440-23-5	Sodium	440.00	B	J	MS
7440-28-0	Thallium	0.11	B	J	MS
7440-62-2	Vanadium	21.20		J	MS
7440-66-6	Zinc	560.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

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EPA SAMPLE NO.

B-4-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: B-4-3

Level: (low/med) Low Date Received: 12/18/08

Solids: 74.9

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6880.00	J		MS
7440-36-0	Antimony	1.09	B	J	MS
7440-38-2	Arsenic	4.69		J	MS
7440-39-3	Barium	236.00			MS
7440-41-7	Beryllium	0.40	B	J	MS
7440-43-9	Cadmium	1.82		J	MS
7440-70-2	Calcium	75500.00			MS
7440-47-3	Chromium	35.00			MS
7440-48-4	Cobalt	5.10			MS
7440-50-8	Copper	94.00		J	MS
7439-89-6	Iron	13600.00			MS
7439-92-1	Lead	18400.00		J	MS
7439-95-4	Magnesium	5820.00			MS
7439-96-5	Manganese	503.00		J	MS
7439-97-6	Mercury	0.67			MS
7440-02-0	Nickel	57.60		J	MS
7440-09-7	Potassium	1150.00			MS
7782-49-2	Selenium	1.13	B		MS
7440-22-4	Silver	0.48	B	J	MS
7440-23-5	Sodium	575.00		J	MS
7440-28-0	Thallium	0.49	B	J	MS
7440-62-2	Vanadium	19.00		J	MS
7440-66-6	Zinc	408.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-1-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: C-1-1

Level: (low/med) Low Date Received: 12/17/08

% Solids: 83:1

Concentration Units (**$\mu\text{g/L}$** or **mg/kg** dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5670.00	J		MS
7440-36-0	Antimony	2.31	B	J	MS
7440-38-2	Arsenic	9.55		J	MS
7440-39-3	Barium	205.00			MS
7440-41-7	Beryllium	0.42	B	J	MS
7440-43-9	Cadmium	0.84		J	MS
7440-70-2	Calcium	66200.00			MS
7440-47-3	Chromium	14.40			MS
7440-48-4	Cobalt	7.17			MS
7440-50-8	Copper	146.00		J	MS
7439-89-6	Iron	14600.00			MS
7439-92-1	Lead	12500.00		J	MS
7439-95-4	Magnesium	30900.00			MS
7439-96-5	Manganese	498.00		J	MS
7439-97-6	Mercury	0.24			MS
7440-02-0	Nickel	55.34		J	MS
7440-09-7	Potassium	650.00			MS
7782-49-2	Selenium	0.41	B		MS
7440-22-4	Silver	0.50	B	J	MS
7440-23-5	Sodium	293.00	B	J	MS
7440-28-0	Thallium	0.15	B	J	MS
7440-62-2	Vanadium	20.70		J	MS
7440-66-6	Zinc	234.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-TN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-1-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846' 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: C-1-2

Level: (low/med) Low Date Received: 12/17/08

% Solids: 72.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8050.00	J		MS
7440-36-0	Antimony	7.15	J		MS
7440-38-2	Arsenic	9.54	J		MS
7440-39-3	Barium	457.00			MS
7440-41-7	Beryllium	0.58	J		MS
7440-43-9	Cadmium	1.93	J		MS
7440-70-2	Calcium	43600.00			MS
7440-47-3	Chromium	21.10			MS
7440-48-4	Cobalt	7.18			MS
7440-50-8	Copper	1480.00	J		MS
7439-89-6	Iron	28900.00			MS
7439-92-1	Lead	31300.00	J		MS
7439-95-4	Magnesium	4130.00			MS
7439-96-5	Manganese	847.00	J		MS
7439-97-6	Mercury	0.31			MS
7440-02-0	Nickel	43.10	J		MS
7440-09-7	Potassium	780.00			MS
7782-49-2	Selenium	0.73	B		MS
7440-22-4	Silver	0.98	B	J	MS
7440-23-5	Sodium	278.00	B	J	MS
7440-28-0	Thallium	0.20	B	J	MS
7440-62-2	Vanadium	25.90	J		MS
7440-66-6	Zinc	3200.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-1-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil

Lab Sample ID: C-1-3

Level: (low/med) Low

Date Received: 12/17/08

% Solids: 70.1

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9880.00	J		MS
7440-36-0	Antimony	9.44	J		MS
7440-38-2	Arsenic	6.04	J		MS
7440-39-3	Barium	527.00			MS
7440-41-7	Beryllium	0.70	J		MS
7440-43-9	Cadmium	1.77	J		MS
7440-70-2	Calcium	40100.00			MS
7440-47-3	Chromium	17.40			MS
7440-48-4	Cobalt	8.39			MS
7440-50-8	Copper	981.00	J		MS
7439-89-6	Iron	22600.00			MS
7439-92-1	Lead	38000.00	J		MS
7439-95-4	Magnesium	4290.00			MS
7439-96-5	Manganese	946.00	J		MS
7439-97-6	Mercury	0.26			MS
7440-02-0	Nickel	53.30	J		MS
7440-09-7	Potassium	1038.00			MS
7782-49-2	Selenium	0.70	B		MS
7440-22-4	Silver	1.04	B	J	MS
7440-23-5	Sodium	314.00	B	J	MS
7440-28-0	Thallium	0.20	B	J	MS
7440-62-2	Vanadium	23.60	J		MS
7440-66-6	Zinc	2090.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B- Detected value < the Contract Required Detection Limit (CRDL)

U- Undetected value < the Instrument Detection Limit (IDL)

J- Estimated concentration due to data validation criteria.

R- Rejected Value

U.S. EPA
IA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-2-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: C-2-1

Level: (low/med) Low Date Received: 12/17/08

Solids: 46.8

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3230.00	J		MS
7440-36-0	Antimony	13.30	J		MS
7440-38-2	Arsenic	8.69	J		MS
7440-39-3	Barium	1610.00	J		MS
7440-41-7	Beryllium	0.42	B	J	MS
7440-43-9	Cadmium	4.80	J		MS
7440-70-2	Calcium	18800.00	J		MS
7440-47-3	Chromium	19.20	J		MS
7440-48-4	Cobalt	5.06	J		MS
7440-50-8	Copper	1130.00	J		MS
7439-89-6	Iron	17300.00	J		MS
7439-92-1	Lead	148000.00	J		MS
7439-95-4	Magnesium	5020.00	J		MS
7439-96-5	Manganese	3720.00	J		MS
7439-97-6	Mercury	0.79	J		MS
7440-02-0	Nickel	86.60	J		MS
7440-09-7	Potassium	516.00	J		MS
7782-49-2	Selenium	1.12	B	J	MS
7440-22-4	Silver	7.74	B	J	MS
7440-23-5	Sodium	823.00	J		MS
7440-28-0	Thallium	0.44	B	J	MS
7440-62-2	Vanadium	10.50	J		MS
7440-66-6	Zinc	227.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-2-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: C-2-2

Level: (low/med) Low Date Received: 12/17/08

% Solids: 50.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1880.00		J	MS
7440-36-0	Antimony	8.47		J	MS
7440-38-2	Arsenic	5.72		J	MS
7440-39-3	Barium	1550.00			MS
7440-41-7	Beryllium	0.25	B	J	MS
7440-43-9	Cadmium	5.46		J	MS
7440-70-2	Calcium	192000.00			MS
7440-47-3	Chromium	21.50			MS
7440-48-4	Cobalt	4.42			MS
7440-50-8	Copper	145.00		J	MS
7439-89-6	Iron	7600.00			MS
7439-92-1	Lead	136000.00		J	MS
7439-95-4	Magnesium	2960.00			MS
7439-96-5	Manganese	4120.00		J	MS
7439-97-6	Mercury	0.42			MS
7440-02-0	Nickel	188.00		J	MS
7440-09-7	Potassium	332.00			MS
7782-49-2	Selenium	0.78	B		MS
7440-22-4	Silver	4.54	B	J	MS
7440-23-5	Sodium	618.00		J	MS
7440-28-0	Thallium	062	B	J	MS
7440-62-2	Vanadium	3.78		J	MS
7440-66-6	Zinc	230.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-2-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: C-2-3

Level: (low/med) Low Date Received: 12/17/08

% Solids: 49.8

Concentration Units (µg/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1809.00	J		MS
7440-36-0	Antimony	9.08	J		MS
7440-38-2	Arsenic	5.90	J		MS
7440-39-3	Barium	1580.00	J		MS
7440-41-7	Beryllium	0.26	B	J	MS
7440-43-9	Cadmium	5.21	J		MS
7440-70-2	Calcium	282000.00	J		MS
7440-47-3	Chromium	13.90	J		MS
7440-48-4	Cobalt	3.87	J		MS
7440-50-8	Copper	153.00	J		MS
7439-89-6	Iron	6300.00	J		MS
7439-92-1	Lead	134000.00	J		MS
7439-95-4	Magnesium	4180.00	J		MS
7439-96-5	Manganese	4660.00	J		MS
7439-97-6	Mercury	0.84	J		MS
7440-02-0	Nickel	54.60	J		MS
7440-09-7	Potassium	437.00	J		MS
7782-49-2	Selenium	0.79	B	J	MS
7440-22-4	Silver	4.51	B	J	MS
7440-23-5	Sodium	837.00	J		MS
7440-28-0	Thallium	0.75	B	J	MS
7440-62-2	Vanadium	3.93	J		MS
7440-66-6	Zinc	206.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B- Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-3-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewettl NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: C-3-1

Level: (low/med) Low Date Received: 12/18/08

Solids: 80.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7980.00		J	MS
7440-36-0	Antimony	0.95	B	J	MS
7440-38-2	Arsenic	33.40		J	MS
7440-39-3	Barium	230.00			MS
7440-41-7	Beryllium	0.66		J	MS
7440-43-9	Cadmium	1.17		J	MS
7440-70-2	Calcium	6280.00			MS
7440-47-3	Chromium	14.70			MS
7440-48-4	Cobalt	5.29			MS
7440-50-8	Copper	64.29		J	MS
7439-89-6	Iron	10060.00			MS
7439-92-1	Lead	12800.00		J	MS
7439-95-4	Magnesium	8400.00			MS
7439-96-5	Manganese	423.00		J	MS
7439-97-6	Mercury	0.33			MS
7440-02-0	Nickel	31.50		J	MS
7440-09-7	Potassium	1390.00			MS
7782-49-2	Selenium	0.92	B		MS
7440-22-4	Silver	0.52	B	J	MS
7440-23-5	Sodium	444.00	B	J	MS
7440-28-0	Thallium	0.23	B	J	MS
7440-62-2	Vanadium	26.00		J	MS
7440-66-6	Zinc	257.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-3-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: C-3-3

Level: (low/med) Low Date Received: 12/17/08

% Solids: 43.1

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1801.00	J		MS
7440-36-0	Antimony	8.42	J		MS
7440-38-2	Arsenic	6.26	J		MS
7440-39-3	Barium	1690.00	J		MS
7440-41-7	Beryllium	0.27	B	J	MS
7440-43-9	Cadmium	4.50	J		MS
7440-70-2	Calcium	24600.00	J		MS
7440-47-3	Chromium	17.50	J		MS
7440-48-4	Cobalt	3.69	J		MS
7440-50-8	Copper	140.00	J		MS
7439-89-6	Iron	6720.00	J		MS
7439-92-1	Lead	147000.00	J		MS
7439-95-4	Magnesium	3800.00	J		MS
7439-96-5	Manganese	3760.00	J		MS
7439-97-6	Mercury	0.53	J		MS
7440-02-0	Nickel	57.10	J		MS
7440-09-7	Potassium	740.00	J		MS
7782-49-2	Selenium	1.10	B	J	MS
7440-22-4	Silver	3.27	B	J	MS
7440-23-5	Sodium	727.00	J		MS
7440-28-0	Thallium	0.77	B	J	MS
7440-62-2	Vanadium	3.97	J		MS
7440-66-6	Zinc	196.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-1-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil

Lab Sample ID: D-1-1

Level: (low/med) Low

Date Received: 12/17/08

% Solids: 83.9

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5420.00	J		MS
7440-36-0	Antimony	1.41	B	J	MS
7440-38-2	Arsenic	7.87		J	MS
7440-39-3	Barium	159.00			MS
7440-41-7	Beryllium	0.49	B	J	MS
7440-43-9	Cadmium	1.66		J	MS
7440-70-2	Calcium	35800.00			MS
7440-47-3	Chromium	15.10			MS
7440-48-4	Cobalt	5.77			MS
7440-50-8	Copper	315.00		J	MS
7439-89-6	Iron	11200.00			MS
7439-92-1	Lead	1520.00		J	MS
7439-95-4	Magnesium	4840.00			MS
7439-96-5	Manganese	240.00		J	MS
7439-97-6	Mercury	0.47			MS
7440-02-0	Nickel	27.40		J	MS
7440-09-7	Potassium	752.00			MS
7782-49-2	Selenium	0.24	B		MS
7440-22-4	Silver	0.51	B	J	MS
7440-23-5	Sodium	212.00	B	J	MS
7440-28-0	Thallium	0.13	B	J	MS
7440-62-2	Vanadium	23.60		J	MS
7440-66-6	Zinc	590.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-1-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil

Lab Sample ID: D-1-2

Level: (low/med) Low

Date Received: 12/17/08

% Solids: 88.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5890.00	J		MS
7440-36-0	Antimony	1.01	J		MS
7440-38-2	Arsenic	7.96	J		MS
7440-39-3	Barium	179.00			MS
7440-41-7	Beryllium	0.38	B	J	MS
7440-43-9	Cadmium	0.54		J	MS
7440-70-2	Calcium	32500.00			MS
7440-47-3	Chromium	16.40			MS
7440-48-4	Cobalt	6.50			MS
7440-50-8	Copper	64.20		J	MS
7439-89-6	Iron	13700.00			MS
7439-92-1	Lead	2602.00		J	MS
7439-95-4	Magnesium	7560.00			MS
7439-96-5	Manganese	480.00		J	MS
7439-97-6	Mercury	1.17			MS
7440-02-0	Nickel	35.70		J	MS
7440-09-7	Potassium	882.70			MS
7782-49-2	Selenium	0.23	B		MS
7440-22-4	Silver	0.46	B	J	MS
7440-23-5	Sodium	368.00	B	J	MS
7440-28-0	Thallium	0.11	B	J	MS
7440-62-2	Vanadium	42.20		J	MS
7440-66-6	Zinc	307.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-1-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: D-1-3

Level: (low/med) Low Date Received: 12/17/08

% Solids: 66.5

Concentration Units (µg/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7170.00		J	MS
7440-36-0	Antimony	0.01	U	J	MS
7440-38-2	Arsenic	4.54		J	MS
7440-39-3	Barium	26.60			MS
7440-41-7	Beryllium	0.42	B	J	MS
7440-43-9	Cadmium	0.02		J	MS
7440-70-2	Calcium	1071.00			MS
7440-47-3	Chromium	36.90			MS
7440-48-4	Cobalt	5.55			MS
7440-50-8	Copper	9.33		J	MS
7439-89-6	Iron	18700.00			MS
7439-92-1	Lead	16.20		J	MS
7439-95-4	Magnesium	1940.00			MS
7439-96-5	Manganese	112.00		J	MS
7439-97-6	Mercury	0.06			MS
7440-02-0	Nickel	41.00		J	MS
7440-09-7	Potassium	658.00			MS
7782-49-2	Selenium	0.03	U		MS
7440-22-4	Silver	0.02	B	J	MS
7440-23-5	Sodium	37.10	B	J	MS
7440-28-0	Thallium	0.08	B	J	MS
7440-62-2	Vanadium	22.80		J	MS
7440-66-6	Zinc	29.90		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-2-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: B-2-3

Matrix: (soil/water) Soil Lab Sample ID: D-2-1

Level: (low/med) Low Date Received: 12/17/08

% Solids: 85.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8804.00		J	MS
7440-36-0	Antimony	0.04	B	J	MS
7440-38-2	Arsenic	9.04		J	MS
7440-39-3	Barium	112.00			MS
7440-41-7	Beryllium	0.73		J	MS
7440-43-9	Cadmium	0.08		J	MS
7440-70-2	Calcium	13300.00			MS
7440-47-3	Chromium	25.40			MS
7440-48-4	Cobalt	6.92			MS
7440-50-8	Copper	22.80		J	MS
7439-89-6	Iron	17300.00			MS
7439-92-1	Lead	425.00		J	MS
7439-95-4	Magnesium	3150.00			MS
7439-96-5	Manganese	422.00		J	MS
7439-97-6	Mercury	0.82			MS
7440-02-0	Nickel	27.20		J	MS
7440-09-7	Potassium	764.00			MS
7782-49-2	Selenium	0.17	B		MS
7440-22-4	Silver	0.26	B	J	MS
7440-23-5	Sodium	130.00	B	J	MS
7440-28-0	Thallium	0.10	B	J	MS
7440-62-2	Vanadium	22.00		J	MS
7440-66-6	Zinc	64.50		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

Case# Jewett1

Site Jewett Lead

Matrix Soil: 20

SDG# A-5-0

Lab U.S. EPA Region 2 Mobile Lab

Water: 00

Contractor Not Applicable

Reviewer Robert Finke

Other: 00

A.2.1 Validation Flags-

The following flags have been applied in red by the data validator
Which must be considered by the data user.

J -

This flag indicates that a result is qualified as estimated.

UJ -

This flag indicates that the analyte was analyzed but not detected
And is to be considered as estimated because it may be inaccurate
or imprecise.

R -

This flag indicates that the sample result is to be considered
unusable due to significant error and must not be used by the data
user.

Fully Usable Data -

Results which carry a "J" or "UJ" are considered to be fully usable.

Contractual Qualifiers -

The legend of the contractual qualifiers applied by the laboratory
On the Form I's are found on page B-20 of SOW ILM04.0.

A.2.2 The data assessment is given below and on the attached data sheets

This SDG (A-5-0) consists of 20 soil samples collected on December 15-18, 2008 from the Jewett Lead Superfund site on Staten Island, NY. The samples were prepared on January 5, 2009 and analyzed on January 27, 2009 by the U.S. EPA Region 2 Mobile Analytical Laboratory for the 22 routine Target Analyte List (TAL) metals and mercury with full Contract Laboratory Program (CLP) Quality Control (QC). This analysis was conducted according to SOP MAL-3.07A which is based upon U.S. EPA CLP SOW ILM04.0, SW-846 Method 6010A, and the U.S. EPA Region 2 DESA Laboratory protocol. Upon completion of this analysis and compiling the results, a formal validation was performed to assure the data contained in this analytical report are of appropriate quality. This being performed as part of the requirements of the Quality Assurance (QA) program put forth for the U.S. EPA Region 2 Mobile Analytical Laboratory to ensure its proper operation. This review and evaluation was carried out according to the U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review and U.S. EPA Region 2 Data Validation SOP Evaluation of Metals Data for the Contract Laboratory Program (CLP) based on SOW. 3/90, Rev. XI. It applies to a systematic approach for examining analytical results to identify and assess the indication of bias to render an overall determination of data usability. In doing so, the data user is assured as to how well a given set of analytical results will conform to the established environmental monitoring performance criteria defined for their project. In accordance, the following qualifications are

applied to this data set which must be considered when utilizing these results to make sound environmental decisions.

1. Laboratory Control Sample

The Laboratory Control Sample (LCS) "found" value for cadmium and nickel were greater than the upper acceptable range and have therefore been qualified estimated "J" in all samples contained in this SDG. The Laboratory Control Sample (LCS) "found" value for cobalt and chromium were lower than the lower acceptable range and have therefore been qualified estimated "J" in all samples contained in this samples contained in this SDG.

2. Matrix Spike

The matrix spike recovery of antimony and silver was between 10-74%. Therefore, all antimony and silver data contained in this SDG has been qualified estimated "J".

3. Serial Dilution

The serial dilution result was greater than 10 percent different than the non-diluted sample for sodium, chromium, iron, nickel, selenium, cadmium, antimony, mercury and thallium. All results for these elements were greater than ten times the IDL and have therefore been qualified estimated "J" in all samples contained in this SDG.

4. Percent Solids

Sample C-3-2, possessed less than 50% solids. All elements in this sample has therefore been qualified estimated "J"

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-1-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: A-1-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 66.5

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7000.00			MS
7440-36-0	Antimony	0.09	B	J	MS
7440-38-2	Arsenic	3.74			MS
7440-39-3	Barium	81.00			MS
7440-41-7	Beryllium	0.53			MS
7440-43-9	Cadmium	0.29		J	MS
7440-70-2	Calcium	43200.00			MS
7440-47-3	Chromium	41.5		J	MS
7440-48-4	Cobalt	9.75		J	MS
7440-50-8	Copper	33.60			MS
7439-89-6	Iron	15300.00		J	MS
7439-92-1	Lead	1008.00			MS
7439-95-4	Magnesium	16400.00			MS
7439-96-5	Manganese	323.00			MS
7439-97-6	Mercury	0.12		J	MS
7440-02-0	Nickel	130.00		J	MS
7440-09-7	Potassium	1301.00			MS
7782-49-2	Selenium	0.28	B	J	MS
7440-22-4	Silver	0.12	B	J	MS
7440-23-5	Sodium	432.00	B	J	MS
7440-28-0	Thallium	0.21	B	J	MS
7440-62-2	Vanadium	22.40			MS
7440-66-6	Zinc	96.90			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-2-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: A-2-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 90.5

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100.00			MS
7440-36-0	Antimony	1.85	B	J	MS
7440-38-2	Arsenic	7.15			MS
7440-39-3	Barium	591.00			MS
7440-41-7	Beryllium	3.13			MS
7440-43-9	Cadmium	0.90		J	MS
7440-70-2	Calcium	80200.00			MS
7440-47-3	Chromium	12.90		J	MS
7440-48-4	Cobalt	4.96		J	MS
7440-50-8	Copper	86.50			MS
7439-89-6	Iron	11700.00		J	MS
7439-92-1	Lead	37100.00			MS
7439-95-4	Magnesium	16040.00			MS
7439-96-5	Manganese	11900.00			MS
7439-97-6	Mercury	0.39		J	MS
7440-02-0	Nickel	110.00		J	MS
7440-09-7	Potassium	996.00			MS
7782-49-2	Selenium	0.95	B	J	MS
7440-22-4	Silver	0.85	B	J	MS
7440-23-5	Sodium	583.00		J	MS
7440-28-0	Thallium	0.29	B	J	MS
7440-62-2	Vanadium	14.30			MS
7440-66-6	Zinc	122.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-3-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewetti NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: A-3-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 89.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6460.00			MS
7440-36-0	Antimony	0.12	B	J	MS
7440-38-2	Arsenic	3.10			MS
7440-39-3	Barium	81.90			MS
7440-41-7	Beryllium	0.90	B		MS
7440-43-9	Cadmium	0.30	B	J	MS
7440-70-2	Calcium	8660.00			MS
7440-47-3	Chromium	47.60		J	MS
7440-48-4	Cobalt	11.80		J	MS
7440-50-8	Copper	53.00			MS
7439-89-6	Iron	14900.00		J	MS
7439-92-1	Lead	734.00			MS
7439-95-4	Magnesium	9090.00			MS
7439-96-5	Manganese	342.00			MS
7439-97-6	Mercury	0.09		J	MS
7440-02-0	Nickel	143.00		J	MS
7440-09-7	Potassium	1060.00			MS
7782-49-2	Selenium	0.11	B	J	MS
7440-22-4	Silver	0.12	B	J	MS
7440-23-5	Sodium	356.00	B	J	MS
7440-28-0	Thallium	0.20	B	J	MS
7440-62-2	Vanadium	17.50			MS
7440-66-6	Zinc	143.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-4-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: A-4-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 89.8

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6900.00			MS
7440-36-0	Antimony	0.03	B	J	MS
7440-38-2	Arsenic	2.95			MS
7440-39-3	Barium	81.20			MS
7440-41-7	Beryllium	0.67			MS
7440-43-9	Cadmium	0.25	B	J	MS
7440-70-2	Calcium	9600.00			MS
7440-47-3	Chromium	72.20		J	MS
7440-48-4	Cobalt	29.20		J	MS
7440-50-8	Copper	35.10			MS
7439-89-6	Iron	20800.00		J	MS
7439-92-1	Lead	257.00			MS
7439-95-4	Magnesium	13100.00			MS
7439-96-5	Manganese	520.00			MS
7439-97-6	Mercury	0.17		J	MS
7440-02-0	Nickel	620.00		J	MS
7440-09-7	Potassium	1470.00			MS
7782-49-2	Selenium	0.09	B	J	MS
7440-22-4	Silver	0.09	B	J	MS
7440-23-5	Sodium	796.00		J	MS
7440-28-0	Thallium	0.34	B	J	MS
7440-62-2	Vanadium	15.80			MS
7440-66-6	Zinc	82.20			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-5-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: A-5-0

Matrix: (soil/water) Soil

Lab Sample ID: A-5-0

Level: (low/med) Low

Date Received: 12/15/08

Solids: 80.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7804.00			MS
7440-36-0	Antimony	0.54	B	J	MS
7440-38-2	Arsenic	9.59			MS
7440-39-3	Barium	184.00			MS
7440-41-7	Beryllium	0.75			MS
7440-43-9	Cadmium	1.11		J	MS
7440-70-2	Calcium	44700.00			MS
7440-47-3	Chromium	86.60		J	MS
7440-48-4	Cobalt	15.60		J	MS
7440-50-8	Copper	72.40			MS
7439-89-6	Iron	17600.00		J	MS
7439-92-1	Lead	8005.00			MS
7439-95-4	Magnesium	11200.00			MS
7439-96-5	Manganese	443.00			MS
7439-97-6	Mercury	0.59		J	MS
7440-02-0	Nickel	248.00		J	MS
7440-09-7	Potassium	1220.00			MS
7782-49-2	Selenium	0.37	B	J	MS
7440-22-4	Silver	0.44	B	J	MS
7440-23-5	Sodium	528.00		J	MS
7440-28-0	Thallium	0.54	B	J	MS
7440-62-2	Vanadium	23.30			MS
7440-66-6	Zinc	335.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BG-1-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: BG-1-0

Level: (low/med) Low Date Received: 12/18/08

% Solids: 64.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1510.00			MS
7440-36-0	Antimony	0.09	B	J	MS
7440-38-2	Arsenic	1.44	B		MS
7440-39-3	Barium	16.90	B		MS
7440-41-7	Beryllium	0.11	B		MS
7440-43-9	Cadmium	0.08	B	J	MS
7440-70-2	Calcium	1390.00			MS
7440-47-3	Chromium	4.53		J	MS
7440-48-4	Cobalt	1.22	B	J	MS
7440-50-8	Copper	11.30			MS
7439-89-6	Iron	2230.00		J	MS
7439-92-1	Lead	32.90			MS
7439-95-4	Magnesium	573.00	B		MS
7439-96-5	Manganese	62.90			MS
7439-97-6	Mercury	0.05		J	MS
7440-02-0	Nickel	8.89		J	MS
7440-09-7	Potassium	181.00	B		MS
7782-49-2	Selenium	0.10	B	J	MS
7440-22-4	Silver	0.05	B	J	MS
7440-23-5	Sodium	74.20	B	J	MS
7440-28-0	Thallium	0.03	B	J	MS
7440-62-2	Vanadium	4.01	B		MS
7440-66-6	Zinc	21.50			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BG-1-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: JewettI NRAS No.: _____ SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: BG-1-1

Level: (low/med) Low Date Received: 12/18/08

% Solids: 64.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12000.00			MS
7440-36-0	Antimony	0.72	B	J	MS
7440-38-2	Arsenic	10.80			MS
7440-39-3	Barium	134.00			MS
7440-41-7	Beryllium	0.89			MS
7440-43-9	Cadmium	0.71		J	MS
7440-70-2	Calcium	8120.00			MS
7440-47-3	Chromium	33.00		J	MS
7440-48-4	Cobalt	9.97		J	MS
7440-50-8	Copper	88.40			MS
7439-89-6	Iron	17700.00		J	MS
7439-92-1	Lead	305.00			MS
7439-95-4	Magnesium	3720.00			MS
7439-96-5	Manganese	454.00			MS
7439-97-6	Mercury	0.39		J	MS
7440-02-0	Nickel	81.70		J	MS
7440-09-7	Potassium	1790.00			MS
7782-49-2	Selenium	0.81	B	J	MS
7440-22-4	Silver	0.43	B	J	MS
7440-23-5	Sodium	462.00		J	MS
7440-28-0	Thallium	0.21	B	J	MS
7440-62-2	Vanadium	31.70			MS
7440-66-6	Zinc	202.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BG-2-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil

Lab Sample ID: BG-2-0

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 61.5

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10700.00			MS
7440-36-0	Antimony	0.81	B	J	MS
7440-38-2	Arsenic	52.40			MS
7440-39-3	Barium	181.00			MS
7440-41-7	Beryllium	0.68			MS
7440-43-9	Cadmium	1.26		J	MS
7440-70-2	Calcium	17300.00			MS
7440-47-3	Chromium	33.00		J	MS
7440-48-4	Cobalt	12.30		J	MS
7440-50-8	Copper	97.20			MS
7439-89-6	Iron	20300.00		J	MS
7439-92-1	Lead	406.00			MS
7439-95-4	Magnesium	5029.00			MS
7439-96-5	Manganese	579.00			MS
7439-97-6	Mercury	0.42		J	MS
7440-02-0	Nickel	37.60		J	MS
7440-09-7	Potassium	1350.00			MS
7782-49-2	Selenium	0.45	B	J	MS
7440-22-4	Silver	0.55	B	J	MS
7440-23-5	Sodium	512.00		J	MS
7440-28-0	Thallium	0.19	B	J	MS
7440-62-2	Vanadium	44.70			MS
7440-66-6	Zinc	237.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BG-2-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: BG-2-1

Level: (low/med) Low Date Received: 12/18/08

% Solids: 61.5

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100.00			MS
7440-36-0	Antimony	0.56	B	J	MS
7440-38-2	Arsenic	81.50			MS
7440-39-3	Barium	108.00			MS
7440-41-7	Beryllium	0.70			MS
7440-43-9	Cadmium	0.87		J	MS
7440-70-2	Calcium	6590.00			MS
7440-47-3	Chromium	42.00		J	MS
7440-48-4	Cobalt	7.73		J	MS
7440-50-8	Copper	59.10			MS
7439-89-6	Iron	16600.00		J	MS
7439-92-1	Lead	516.00			MS
7439-95-4	Magnesium	3020.00			MS
7439-96-5	Manganese	389.00			MS
7439-97-6	Mercury	0.36		J	MS
7440-02-0	Nickel	39.00		J	MS
7440-09-7	Potassium	726.00			MS
7782-49-2	Selenium	0.80	B	J	MS
7440-22-4	Silver	0.78	B	J	MS
7440-23-5	Sodium	259.00	B	J	MS
7440-28-0	Thallium	0.20	B	J	MS
7440-62-2	Vanadium	48.40			MS
7440-66-6	Zinc	232.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-3-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: C-3-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 49.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10800.00	J	MS	
7440-36-0	Antimony	1.65	B	J	MS
7440-38-2	Arsenic	4.96		J	MS
7440-39-3	Barium	1380.00	J	MS	
7440-41-7	Beryllium	0.95		J	MS
7440-43-9	Cadmium	2.58	J	MS	
7440-70-2	Calcium	91600.00	J	MS	
7440-47-3	Chromium	184.00	J	MS	
7440-48-4	Cobalt	127.00	J	MS	
7440-50-8	Copper	360.00	J	MS	
7439-89-6	Iron	61600.00	J	MS	
7439-92-1	Lead	118000.00	J	MS	
7439-95-4	Magnesium	76600.00	J	MS	
7439-96-5	Manganese	5720.00	J	MS	
7439-97-6	Mercury	2.00	J	MS	
7440-02-0	Nickel	2070.00	J	MS	
7440-09-7	Potassium	514.00	J	MS	
7782-49-2	Selenium	1.45	B	J	MS
7440-22-4	Silver	1.92	B	J	MS
7440-23-5	Sodium	757.00	J	MS	
7440-28-0	Thallium	0.35	B	J	MS
7440-62-2	Vanadium	22.20	J	MS	
7440-66-6	Zinc	312.00	J	MS	

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-2-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: D-2-2

Level: (low/med) Low Date Received: 12/17/08

% Solids: 85.5

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1050.00			MS
7440-36-0	Antimony	0.01	U	J	MS
7440-38-2	Arsenic	8.24			MS
7440-39-3	Barium	139.00			MS
7440-41-7	Beryllium	0.92			MS
7440-43-9	Cadmium	0.08		J	MS
7440-70-2	Calcium	16400.00			MS
7440-47-3	Chromium	28.10		J	MS
7440-48-4	Cobalt	11.60		J	MS
7440-50-8	Copper	25.90			MS
7439-89-6	Iron	20600.00		J	MS
7439-92-1	Lead	531.00			MS
7439-95-4	Magnesium	9280.00			MS
7439-96-5	Manganese	558.00			MS
7439-97-6	Mercury	1.04		J	MS
7440-02-0	Nickel	88.00		J	MS
7440-09-7	Potassium	869.00			MS
7782-49-2	Selenium	0.05	B	J	MS
7440-22-4	Silver	0.32	B	J	MS
7440-23-5	Sodium	279.00	B	J	MS
7440-28-0	Thallium	0.13	B	J	MS
7440-62-2	Vanadium	25.80			MS
7440-66-6	Zinc	70.10			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-2-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil

Lab Sample ID: D-2-3

Level: (low/med) Low

Date Received: 12/17/08

% Solids: 89.4

Concentration Units: ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6760.00			MS
7440-36-0	Antimony	0.01	U	J	MS
7440-38-2	Arsenic	6.45			MS
7440-39-3	Barium	43.20			MS
7440-41-7	Beryllium	0.51			MS
7440-43-9	Cadmium	0.04		J	MS
7440-70-2	Calcium	1340.00			MS
7440-47-3	Chromium	15.40		J	MS
7440-48-4	Cobalt	6.46		J	MS
7440-50-8	Copper	9.56			MS
7439-89-6	Iron	19400.00		J	MS
7439-92-1	Lead	26.70			MS
7439-95-4	Magnesium	2017.00			MS
7439-96-5	Manganese	273.00			MS
7439-97-6	Mercury	0.24		J	MS
7440-02-0	Nickel	14.30		J	MS
7440-09-7	Potassium	855.00			MS
7782-49-2	Selenium	0.07	B	J	MS
7440-22-4	Silver	0.02	B	J	MS
7440-23-5	Sodium	63.70	B	J	MS
7440-28-0	Thallium	0.10	B	J	MS
7440-62-2	Vanadium	25.20			MS
7440-66-6	Zinc	43.10			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-1-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: E-1-1

Level: (low/med) Low Date Received: 12/17/08

% Solids: 79.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6095.00			MS
7440-36-0	Antimony	3.19	J		MS
7440-38-2	Arsenic	7.62			MS
7440-39-3	Barium	777.00			MS
7440-41-7	Beryllium	0.50	B		MS
7440-43-9	Cadmium	4.52	J		MS
7440-70-2	Calcium	30900.00			MS
7440-47-3	Chromium	24.00	J		MS
7440-48-4	Cobalt	7.48	J		MS
7440-50-8	Copper	262.00			MS
7439-89-6	Iron	25200.00	J		MS
7439-92-1	Lead	8330.00			MS
7439-95-4	Magnesium	10400.00			MS
7439-96-5	Manganese	387.00			MS
7439-97-6	Mercury	0.59	J		MS
7440-02-0	Nickel	49.90	J		MS
7440-09-7	Potassium	795.00			MS
7782-49-2	Selenium	0.48	B	J	MS
7440-22-4	Silver	1.53	B	J	MS
7440-23-5	Sodium	342.00	B	J	MS
7440-28-0	Thallium	0.16	B	J	MS
7440-62-2	Vanadium	23.40			MS
7440-66-6	Zinc	2180.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-1-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample. ID: E-1-2

Level: (low/med) Low Date Received: 12/17/08

% Solids: 86.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4680.00			MS
7440-36-0	Antimony	3.29	B	J	MS
7440-38-2	Arsenic	8.52			MS
7440-39-3	Barium	606.00			MS
7440-41-7	Beryllium	0.37	B		MS
7440-43-9	Cadmium	2.44		J	MS
7440-70-2	Calcium	22400.00			MS
7440-47-3	Chromium	23.10		J	MS
7440-48-4	Cobalt	6.25		J	MS
7440-50-8	Copper	257.00			MS
7439-89-6	Iron	22000.00		J	MS
7439-92-1	Lead	5702.00			MS
7439-95-4	Magnesium	7360.00			MS
7439-96-5	Manganese	326.00			MS
7439-97-6	Mercury	0.58		J	MS
7440-02-0	Nickel	51.40		J	MS
7440-09-7	Potassium	642.00			MS
7782-49-2	Selenium	0.46	B	J	MS
7440-22-4	Silver	1.24	B	J	MS
7440-23-5	Sodium	294.00	B	J	MS
7440-28-0	Thallium	0.15	B	J	MS
7440-62-2	Vanadium	21.50			MS
7440-66-6	Zinc	1260.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-1-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: E-1-3

Level: (low/med) Low Date Received: 12/17/08

% Solids: 76.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5660.00			MS
7440-36-0	Antimony	4.39	B	J	MS
7440-38-2	Arsenic	8.73			MS
7440-39-3	Barium	1460.00			MS
7440-41-7	Beryllium	0.44	B		MS
7440-43-9	Cadmium	14.90		J	MS
7440-70-2	Calcium	31500.00			MS
7440-47-3	Chromium	67.00		J	MS
7440-48-4	Cobalt	10.40		J	MS
7440-50-8	Copper	1380.00			MS
7439-89-6	Iron	56300.00		J	MS
7439-92-1	Lead	14500.00			MS
7439-95-4	Magnesium	7290.00			MS
7439-96-5	Manganese	602.00			MS
7439-97-6	Mercury	0.66		J	MS
7440-02-0	Nickel	142.00		J	MS
7440-09-7	Potassium	762.00			MS
7782-49-2	Selenium	0.75	B	J	MS
7440-22-4	Silver	7.24	B	J	MS
7440-23-5	Sodium	553.00		J	MS
7440-28-0	Thallium	0.21	B	J	MS
7440-62-2	Vanadium	21.60			MS
7440-66-6	Zinc	7660.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-2-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: E-2-1

Level: (low/med) Low Date Received: 12/17/08

% Solids: 77.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8780.00			MS
7440-36-0	Antimony	0.55	B	J	MS
7440-38-2	Arsenic	7.50			MS
7440-39-3	Barium	207.00			MS
7440-41-7	Beryllium	0.71			MS
7440-43-9	Cadmium	0.85		J	MS
7440-70-2	Calcium	11100.00			MS
7440-47-3	Chromium	32.00		J	MS
7440-48-4	Cobalt	7.37		J	MS
7440-50-8	Copper	81.10			MS
7439-89-6	Iron	26400.00		J	MS
7439-92-1	Lead	1920.00			MS
7439-95-4	Magnesium	3230.00			MS
7439-96-5	Manganese	264.00			MS
7439-97-6	Mercury	0.70		J	MS
7440-02-0	Nickel	34.40		J	MS
7440-09-7	Potassium	1180.00			MS
7782-49-2	Selenium	0.45	B	J	MS
7440-22-4	Silver	0.64	B	J	MS
7440-23-5	Sodium	239.00	B	J	MS
7440-28-0	Thallium	0.24	B	J	MS
7440-62-2	Vanadium	31.70			MS
7440-66-6	Zinc	299.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-2-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: E-2-2

Level: (low/med) Low Date Received: 12/17/08

% Solids: 87.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11700.00			MS
7440-36-0	Antimony	0.64	B	J	MS
7440-38-2	Arsenic	10.30			MS
7440-39-3	Barium	215.00			MS
7440-41-7	Beryllium	0.76			MS
7440-43-9	Cadmium	0.88		J	MS
7440-70-2	Calcium	20600.00			MS
7440-47-3	Chromium	35.20		J	MS
7440-48-4	Cobalt	11.60		J	MS
7440-50-8	Copper	63.70			MS
7439-89-6	Iron	27600.00		J	MS
7439-92-1	Lead	1730.00			MS
7439-95-4	Magnesium	5620.00			MS
7439-96-5	Manganese	1401.00			MS
7439-97-6	Mercury	0.87		J	MS
7440-02-0	Nickel	42.80		J	MS
7440-09-7	Potassium	1550.00			MS
7782-49-2	Selenium	0.17	B	J	MS
7440-22-4	Silver	0.73	B	J	MS
7440-23-5	Sodium	249.00	B	J	MS
7440-28-0	Thallium	0.17	B	J	MS
7440-62-2	Vanadium	36.70			MS
7440-66-6	Zinc	338.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-2-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846-6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: A-5-0

Matrix: (soil/water) Soil

Lab Sample ID: E-2-3

Level: (low/med) Low

Date Received: 12/17/08

% Solids: 85.5

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7510.0			MS
7440-36-0	Antimony	0.01	U	J	MS
7440-38-2	Arsenic	7.47			MS
7440-39-3	Barium	40.50			MS
7440-41-7	Beryllium	0.48			MS
7440-43-9	Cadmium	0.02	B	J	MS
7440-70-2	Calcium	1650.00			MS
7440-47-3	Chromium	28.50		J	MS
7440-48-4	Cobalt	6.31		J	MS
7440-50-8	Copper	10.90			MS
7439-89-6	Iron	29600.00		J	MS
7439-92-1	Lead	29.20			MS
7439-95-4	Magnesium	1430.00			MS
7439-96-5	Manganese	209.00			MS
7439-97-6	Mercury	0.10		J	MS
7440-02-0	Nickel	16.96		J	MS
7440-09-7	Potassium	1370.00			MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.02	B	J	MS
7440-23-5	Sodium	106.00	B	J	MS
7440-28-0	Thallium	0.13	B	J	MS
7440-62-2	Vanadium	26.50			MS
7440-66-6	Zinc	142.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

O-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: O-1

Level: (low/med) Low Date Received: 12/15/08

% Solids: 80.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11500.00			MS
7440-36-0	Antimony	0.93	B	J	MS
7440-38-2	Arsenic	7.61			MS
7440-39-3	Barium	258.00			MS
7440-41-7	Beryllium	0.97			MS
7440-43-9	Cadmium	1.24		J	MS
7440-70-2	Calcium	25600.00			MS
7440-47-3	Chromium	62.80		J	MS
7440-48-4	Cobalt	18.20		J	MS
7440-50-8	Copper	239.00			MS
7439-89-6	Iron	30600.00		J	MS
7439-92-1	Lead	2760.00			MS
7439-95-4	Magnesium	14020.00			MS
7439-96-5	Manganese	592.00			MS
7439-97-6	Mercury	0.32		J	MS
7440-02-0	Nickel	154.00		J	MS
7440-09-7	Potassium	1850.00			MS
7782-49-2	Selenium	0.34	B	J	MS
7440-22-4	Silver	0.69	B	J	MS
7440-23-5	Sodium	542.00		J	MS
7440-28-0	Thallium	0.23	B	J	MS
7440-62-2	Vanadium	43.10			MS
7440-66-6	Zinc	919.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO. _____

O-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

Matrix: (soil/water) Soil Lab Sample ID: O-2

Level: (low/med) Low Date Received: 12/15/08

% Solids: 93.1

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3706.00			MS
7440-36-0	Antimony	0.62	B	J	MS
7440-38-2	Arsenic	2.49			MS
7440-39-3	Barium	70.30			MS
7440-41-7	Beryllium	0.22	B		MS
7440-43-9	Cadmium	0.29		J	MS
7440-70-2	Calcium	14400.00			MS
7440-47-3	Chromium	45.50		J	MS
7440-48-4	Cobalt	5.90		J	MS
7440-50-8	Copper	62.10			MS
7439-89-6	Iron	13800.00		J	MS
7439-92-1	Lead	383.00			MS
7439-95-4	Magnesium	7960.00			MS
7439-96-5	Manganese	189.00			MS
7439-97-6	Mercury	0.05		J	MS
7440-02-0	Nickel	69.80		J	MS
7440-09-7	Potassium	861.00			MS
7782-49-2	Selenium	0.16	B	J	MS
7440-22-4	Silver	1.58	B	J	MS
7440-23-5	Sodium	448.00		J	MS
7440-28-0	Thallium	0.12	B	J	MS
7440-62-2	Vanadium	16.00			MS
7440-66-6	Zinc	276.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA

COVER PAGE

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: MODSW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: A-5-0

SOW No.: N/A

EPA Sample No.	Lab Sample ID
B-1-0	B-1-0
B-2-0	B-2-0
B-3-0	B-3-0
B-4-0	B-4-0
C-1-0	C-1-0
A-5-0(D)	A-5-0(D)
A-5-0(S)	A-5-0(S)
A-5-0(L)	A-5-0(L)
C-2-0	C-2-0
C-3-0	C-3-0
D-1-0	D-1-0
D-2-0	D-2-0
E-1-0	E-1-0
E-1-0(D)	E-1-0(D)
E-1-0(S)	E-1-0(S)
E-1-0(L)	E-1-0(L)
E-2-0	E-2-0
G-2-0	G-2-0
G-2-2	G-2-2
G-3-3	G-3-3
G-5-1	G-5-1
O-3	O-3
O-4	O-4

ICP-AES ICP-MS

Were ICP-AES and ICP-MS interelement corrections applied? (Yes/No) _____ No _____

Were ICP-AES and ICP-MS background corrections applied? (Yes/No) _____ No _____

If yes, were raw data generated before application of background corrections? (Yes/No) _____ No _____

Comments:

(D) = Laboratory Matrix Duplicate Sample, (S) = Laboratory Matrix Spike sample (L) = Serial Dilution Sample

Case# <u>Jewett1</u>	Site <u>Jewett Lead</u>	Matrix Soil: <u>17</u>
SDG# <u>E-1-0</u>	Lab <u>U.S. EPA Region 2 Mobile Lab</u>	Water: <u>00</u>
Contractor <u>Not Applicable</u>	Reviewer <u>Robert Finke</u>	Other: <u>00</u>

A.2.1 Validation Flags- The following flags have been applied in red by the data validator Which must be considered by the data user.

- J - This flag indicates that a result is qualified as estimated.
- UJ - This flag indicates that the analyte was analyzed but not detected And is to be considered as estimated because it may be inaccurate or imprecise.
- R - This flag indicates that the sample result is to be considered unusable due to significant error and must not be used by the data user.

Fully Usable Data - Results which carry a "J" or "UJ" are considered to be fully usable.

Contractual Qualifiers - The legend of the contractual qualifiers applied by the laboratory On the Form I's are found on page B-20 of SOW ILM04.0.

A.2.2 The data assessment is given below and on the attached data sheets

This SDG (E-1-0) consists of 17 soil samples collected on December 15, 2008 from the Jewett Lead Superfund site on Staten Island, NY. The samples were prepared on January 7, 2009 and analyzed on January 28, 2009 by the U.S. EPA Region 2 Mobile Analytical Laboratory for the 22 routine Target Analyte List (TAL) metals and mercury with full Contract Laboratory Program (CLP) Quality Control (QC). This analysis was conducted according to SOP MAL-3.07A which is based upon U.S. EPA CLP SOW ILM04.0, SW-846 Method 6010A, and the U.S. EPA Region 2 DESA Laboratory protocol. Upon completion of this analysis and compiling the results, a formal validation was performed to assure the data contained in this analytical report are of appropriate quality. This being performed as part of the requirements of the Quality Assurance (QA) program put forth for the U.S. EPA Region 2 Mobile Analytical Laboratory to ensure its proper operation. This review and evaluation was carried out according to the U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review and U.S. EPA Region 2 Data Validation SOP Evaluation of Metals Data for the Contract Laboratory Program (CLP) based on SOW 3/90, Rev. XI. It applies to a systematic approach for examining analytical results to identify and assess the indication of bias to render an overall determination of data usability. In doing so, the data user is assured as to how well a given set of analytical results will conform to the established environmental monitoring performance criteria defined for their project. In accordance, the following qualifications are

applied to this data set which must be considered when utilizing these results to make sound environmental decisions.

1. Calibration

The results of an Continuing Calibration Verification (CCV) determination yielded recoveries which were not within the specified control limits of 90-110%R. This requires that the associated results be qualified as estimated "J" in the affected environmental samples, resulting in the following required action(s.)

Element(s)	%R	Qualification	Sample(s) Qualified
Manganese (CCV-1)	112.5	J	E-1-0, G-5-1, G-3-3
Nickel (CCV-2)	87.4	J	C-1-0, C-2-0, C-3-0, D-1-0, D-2-0, B-1-0, B-2-0, B-3-0, B-4-0
Copper (CCV-2)	89.0	J	C-1-0, C-2-0, C-3-0, D-1-0, D-2-0, B-1-0, B-2-0, B-3-0, B-4-0
Arsenic (CCV-2)	82.7	J	C-1-0, C-2-0, C-3-0, D-1-0, D-2-0, B-1-0, B-2-0, B-3-0, B-4-0
Silver (CCV-2)	77.4	J	C-1-0, C-2-0, C-3-0, D-1-0, D-2-0, B-1-0, B-2-0, B-3-0, B-4-0
Antimony (CCV-2)	87.6	J	C-1-0, C-2-0, C-3-0, D-1-0, D-2-0, B-1-0, B-2-0, B-3-0, B-4-0
Manganese (CCV-3)	112.6	J	B-1-0, B-2-0, B-3-0, B-4-0

2. Laboratory Control Sample

The Laboratory Control Sample (LCS) "found" value for cobalt, chromium, and vanadium were less than the lower acceptable range and have therefore been qualified estimated "J" in all samples contained in this SDG.

3. Laboratory Duplicate Analysis

The Relative Percent Difference (RPD) between the sample and lab duplicate sample for the element selenium was greater than 100%. Therefore selenium in sample E-1-0 has been qualified estimated "J".

4. Matrix Spike

The matrix spike recovery of barium, cobalt was between 10-74%. Therefore barium and cobalt have been qualified estimated "J" in all samples contained in this SDG.

5. Serial Dilution

The serial dilution result was greater than 10 percent different than the non-diluted sample for sodium, potassium, chromium, manganese, nickel, selenium, silver, cadmium, mercury and lead. All results for these elements were greater than ten times the IDL and have therefore been qualified estimated "J" in all samples contained in this SDG.

U.S. EPA
IA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1-0

Lab Name: U.S. EPA Région 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: B-1-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 82.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7020.00			MS
7440-36-0	Antimony	0.97	B		MS
7440-38-2	Arsenic	7.25			MS
7440-39-3	Barium	177.00		J	MS
7440-41-7	Beryllium	0.52	B		MS
7440-43-9	Cadmium	0.63		J	MS
7440-70-2	Calcium	29000.00			MS
7440-47-3	Chromium	19.00		J	MS
7440-48-4	Cobalt	7.60		J	MS
7440-50-8	Copper	75.30			MS
7439-89-6	Iron	16500.00			MS
7439-92-1	Lead	13400.00		J	MS
7439-95-4	Magnesium	8740.00			MS
7439-96-5	Manganese	538.00		J	MS
7439-97-6	Mercury	0.27		J	MS
7440-02-0	Nickel	37.00		J	MS
7440-09-7	Potassium	951.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.50	B	J	MS
7440-23-5	Sodium	301.00	B	J	MS
7440-28-0	Thallium	0.15	B		MS
7440-62-2	Vanadium	25.80		J	MS
7440-66-6	Zinc	166.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2-0

Lab Name: U.S. EPA Région 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil

Lab Sample ID: B-2-0

Level: (low/med) Low

Date Received: 12/15/08

% Solids: 90.3

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4960.00			MS
7440-36-0	Antimony	0.23	B	J	MS
7440-38-2	Arsenic	2.75		J	MS
7440-39-3	Barium	52.40		J	MS
7440-41-7	Beryllium	0.35	B		MS
7440-43-9	Cadmium	0.17		J	MS
7440-70-2	Calcium	11500.00			MS
7440-47-3	Chromium	24.70		J	MS
7440-48-4	Cobalt	7.98		J	MS
7440-50-8	Copper	18.60		J	MS
7439-89-6	Iron	11600.00			MS
7439-92-1	Lead	456.00		J	MS
7439-95-4	Magnesium	5830.00			MS
7439-96-5	Manganese	243.00		J	MS
7439-97-6	Mercury	0.07		J	MS
7440-02-0	Nickel	92.70		J	MS
7440-09-7	Potassium	872.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.16	B	J	MS
7440-23-5	Sodium	555.00		J	MS
7440-28-0	Thallium	0.10	B		MS
7440-62-2	Vanadium	15.80		J	MS
7440-66-6	Zinc	70.60			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-3-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: B-3-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 90.3

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4980.00			MS
7440-36-0	Antimony	0.41	B	J	MS
7440-38-2	Arsenic	3.47		J	MS
7440-39-3	Barium	66.40		J	MS
7440-41-7	Beryllium	0.55	B		MS
7440-43-9	Cadmium	0.24		J	MS
7440-70-2	Calcium	7320.00			MS
7440-47-3	Chromium	18.60		J	MS
7440-48-4	Cobalt	6.97		J	MS
7440-50-8	Copper	27.30		J	MS
7439-89-6	Iron	11900.00			MS
7439-92-1	Lead	319.00		J	MS
7439-95-4	Magnesium	4204.00			MS
7439-96-5	Manganese	253.00		J	MS
7439-97-6	Mercury	0.07		J	MS
7440-02-0	Nickel	52.50		J	MS
7440-09-7	Potassium	1005.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.21	B	J	MS
7440-23-5	Sodium	404.00	B	J	MS
7440-28-0	Thallium	0.11	B		MS
7440-62-2	Vanadium	19.30		J	MS
7440-66-6	Zinc	102.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-4-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW246 6020A

Lab Code: R2-MAL Case No.: Jewetti NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: B-4-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 84.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	T	Q	M
7429-90-5	Aluminum	13500.00				MS
7440-36-0	Antimony	0.36	B	J		MS
7440-38-2	Arsenic	3.97		J		MS
7440-39-3	Barium	70.40		J		MS
7440-41-7	Beryllium	0.60	B			MS
7440-43-9	Cadmium	0.27		J		MS
7440-70-2	Calcium	15200.00				MS
7440-47-3	Chromium	59.20		J		MS
7440-48-4	Cobalt	23.30		J		MS
7440-50-8	Copper	32.40		J		MS
7439-89-6	Iron	17200.00				MS
7439-92-1	Lead	538.00		J		MS
7439-95-4	Magnesium	13500.00				MS
7439-96-5	Manganese	347.00		J		MS
7439-97-6	Mercury	0.08		J		MS
7440-02-0	Nickel	317.00		J		MS
7440-09-7	Potassium	1550.00		J		MS
7782-49-2	Selenium	0.11	U	J		MS
7440-22-4	Silver	0.21	B	J		MS
7440-23-5	Sodium	3401.00		J		MS
7440-28-0	Thallium	0.17	B			MS
7440-62-2	Vanadium	24.10		J		MS
7440-66-6	Zinc	101.00				MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-1-0

Lab Name: U.S. EPA Region 2~Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: C-1-0

Level: (low/med) Low Date Received: 12/15/08

* Solids: 85.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6200.00			MS
7440-36-0	Antimony	1.50	B	J	MS
7440-38-2	Arsenic	6.83		J	MS
7440-39-3	Barium	171.00		J	MS
7440-41-7	Beryllium	0.38	B		MS
7440-43-9	Cadmium	0.80		J	MS
7440-70-2	Calcium	28100.00			MS
7440-47-3	Chromium	15.80		J	MS
7440-48-4	Cobalt	6.55		J	MS
7440-50-8	Copper	148.00		J	MS
7439-89-6	Iron	14000.00			MS
7439-92-1	Lead	11500.00		J	MS
7439-95-4	Magnesium	7060.00			MS
7439-96-5	Manganese	435.00		J	MS
7439-97-6	Mercury	0.22		J	MS
7440-02-0	Nickel	32.00		J	MS
7440-09-7	Potassium	864.00		J	MS
7782-49-2	Selenium	0.02	U	J	MS
7440-22-4	Silver	0.55	B	J	MS
7440-23-5	Sodium	387.00	B	J	MS
7440-28-0	Thallium	0.15	B		MS
7440-62-2	Vanadium	21.20		J	MS
7440-66-6	Zinc	282.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-2-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil

Lab Sample ID: C-2-0

Level: (low/med) Low

Date Received: 12/15/08

% Solids: 90.6

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4280.00			MS
7440-36-0	Antimony	0.05	B	J	MS
7440-38-2	Arsenic	1.95		J	MS
7440-39-3	Barium	45.90		J	MS
7440-41-7	Beryllium	0.37	B		MS
7440-43-9	Cadmium	0.15		J	MS
7440-70-2	Calcium	3850.00			MS
7440-47-3	Chromium	15.60		J	MS
7440-48-4	Cobalt	7.32		J	MS
7440-50-8	Copper	15.80		J	MS
7439-89-6	Iron	9960.00			MS
7439-92-1	Lead	227.00		J	MS
7439-95-4	Magnesium	3500.00			MS
7439-96-5	Manganese	268.00		J	MS
7439-97-6	Mercury	0.05		J	MS
7440-02-0	Nickel	71.60		J	MS
7440-09-7	Potassium	822.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.13	B	J	MS
7440-23-5	Sodium	352.00	B	J	MS
7440-28-0	Thallium	0.10	B		MS
7440-62-2	Vanadium	13.90		J	MS
7440-66-6	Zinc	58.10			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-3-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: C-3-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 84.9

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4770.00			MS
7440-36-0	Antimony	0.20	B		MS
7440-38-2	Arsenic	2.70			MS
7440-39-3	Barium	84.50		J	MS
7440-41-7	Beryllium	0.34	B		MS
7440-43-9	Cadmium	1.83		J	MS
7440-70-2	Calcium	6940.00			MS
7440-47-3	Chromium	23.20		J	MS
7440-48-4	Cobalt	8.38		J	MS
7440-50-8	Copper	22.60			MS
7439-89-6	Iron	12100.00			MS
7439-92-1	Lead	471.00		J	MS
7439-95-4	Magnesium	7240.00			MS
7439-96-5	Manganese	228.00		J	MS
7439-97-6	Mercury	0.12		J	MS
7440-02-0	Nickel	99.80		J	MS
7440-09-7	Potassium	1160.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.17	B	J	MS
7440-23-5	Sodium	504.00		J	MS
7440-28-0	Thallium	0.10	B		MS
7440-62-2	Vanadium	16.45			MS
7440-66-6	Zinc	94.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-1-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 .6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: D-1-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 85.3

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	'C	Q	M
7429-90-5	Aluminum	6320.00			MS
7440-36-0	Antimony	1.47	B	J	MS
7440-38-2	Arsenic	6.88		J	MS
7440-39-3	Barium	205.00		J	MS
7440-41-7	Beryllium	0.37	B		MS
7440-43-9	Cadmium	1.06		J	MS
7440-70-2	Calcium	34000.00			MS
7440-47-3	Chromium	17.50		J	MS
7440-48-4	Cobalt	6.88		J	MS
7440-50-8	Copper	123.00		J	MS
7439-89-6	Iron	15400.00			MS
7439-92-1	Lead	6580.00		J	MS
7439-95-4	Magnesium	10700.00			MS
7439-96-5	Manganese	376.00		J	MS
7439-97-6	Mercury	0.35		J	MS
7440-02-0	Nickel	33.50		J	MS
7440-09-7	Potassium	798.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.48	B	J	MS
7440-23-5	Sodium	369.00	B	J	MS
7440-28-0	Thallium	0.14	B		MS
7440-62-2	Vanadium	24.10		J	MS
7440-66-6	Zinc	380.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D-2-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: D-2-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 89.4

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5740.00			MS
7440-36-0	Antimony	0.41	B	J	MS
7440-38-2	Arsenic	3.66		J	MS
7440-39-3	Barium	115.00		J	MS
7440-41-7	Beryllium	0.38	B		MS
7440-43-9	Cadmium	0.44		J	MS
7440-70-2	Calcium	12300.00			MS
7440-47-3	Chromium	19.60		J	MS
7440-48-4	Cobalt	8.31		J	MS
7440-50-8	Copper	43.28		J	MS
7439-89-6	Iron	14500.00			MS
7439-92-1	Lead	1210.00		J	MS
7439-95-4	Magnesium	3870.00			MS
7439-96-5	Manganese	255.00		J	MS
7439-97-6	Mercury	0.28		J	MS
7440-02-0	Nickel	56.60		J	MS
7440-09-7	Potassium	894.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.27	B	J	MS
7440-23-5	Sodium	351.00	B	J	MS
7440-28-0	Thallium	0.12	B		MS
7440-62-2	Vanadium	17.00		J	MS
7440-66-6	Zinc	385.00			MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-1-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: _____ SDG No.: E-1-0

Matrix: (soil/water) Soil

Lab Sample ID: E-1-0

Level: (low/med) Low

Date Received: 12/15/08

% Solids: 93.2

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3930.00			MS
7440-36-0	Antimony	0.17	B		MS
7440-38-2	Arsenic	2.30			MS
7440-39-3	Barium	49.70		J	MS
7440-41-7	Beryllium	0.30	B		MS
7440-43-9	Cadmium	0.24		J	MS
7440-70-2	Calcium	3720.00			MS
7440-47-3	Chromium	28.70		J	MS
7440-48-4	Cobalt	6.05		J	MS
7440-50-8	Copper	23.00			MS
7439-89-6	Iron	9510.00			MS
7439-92-1	Lead	415.00		J	MS
7439-95-4	Magnesium	2840.00			MS
7439-96-5	Manganese	203.00		J	MS
7439-97-6	Mercury	0.21		J	MS
7440-02-0	Nickel	102.00		J	MS
7440-09-7	Potassium	614.00		J	MS
7782-49-2	Selenium	0.15	U	J	MS
7440-22-4	Silver	0.20	B	J	MS
7440-23-5	Sodium	382.00	B	J	MS
7440-28-0	Thallium	0.37	B		MS
7440-62-2	Vanadium	12.90			MS
7440-66-6	Zinc	74.40		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture: _____

Color After: Yellow Clarity After: Clear Artifacts: _____

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
JA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-2-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: E-2-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 77.8

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6940.00			MS
7440-36-0	Antimony	3.12	B		MS
7440-38-2	Arsenic	7.29			MS
7440-39-3	Barium	133.00	J		MS
7440-41-7	Beryllium	0.47	B		MS
7440-43-9	Cadmium	0.91	J		MS
7440-70-2	Calcium	31200.00			MS
7440-47-3	Chromium	20.30	J		MS
7440-48-4	Cobalt	8.43	J		MS
7440-50-8	Copper	76.30			MS
7439-89-6	Iron	17100.00			MS
7439-92-1	Lead	2710.00	J		MS
7439-95-4	Magnesium	8900.00			MS
7439-96-5	Manganese	380.00	J		MS
7439-97-6	Mercury	0.31	J		MS
7440-02-0	Nickel	52.20	J		MS
7440-09-7	Potassium	1140.00	J		MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.47	B	J	MS
7440-23-5	Sodium	360.00	B	J	MS
7440-28-0	Thallium	0.15	B		MS
7440-62-2	Vanadium	23.50			MS
7440-66-6	Zinc	293.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

G-2-0

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: G-2-0

Level: (low/med) Low Date Received: 12/15/08

% Solids: 89.3

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6610.00			MS
7440-36-0	Antimony	0.47	B		MS
7440-38-2	Arsenic	4.81			MS
7440-39-3	Barium	132.00	J		MS
7440-41-7	Beryllium	0.42	B		MS
7440-43-9	Cadmium	0.61	J		MS
7440-70-2	Calcium	12200.00			MS
7440-47-3	Chromium	46.20	J		MS
7440-48-4	Cobalt	8.34	J		MS
7440-50-8	Copper	46.70			MS
7439-89-6	Iron	14800.00			MS
7439-92-1	Lead	1450.00	J		MS
7439-95-4	Magnesium	4304.00			MS
7439-96-5	Manganese	309.00	J		MS
7439-97-6	Mercury	0.31	J		MS
7440-02-0	Nickel	86.60	J		MS
7440-09-7	Potassium	951.00	J		MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.28	B	J	MS
7440-23-5	Sodium	446.00	B	J	MS
7440-28-0	Thallium	0.14	B		MS
7440-62-2	Vanadium	20.30			MS
7440-66-6	Zinc	200.00	J		MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS, DATA SHEET

EPA SAMPLE NO.

G-2-2

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAI Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: G-2-2

Level: (low/med) Low Date Received: 12/18/08

% Solids: 51.0

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2850.00			MS
7440-36-0	Antimony	11.70	B		MS
7440-38-2	Arsenic	4.49			MS
7440-39-3	Barium	1520.00		J	MS
7440-41-7	Beryllium	0.27	B		MS
7440-43-9	Cadmium	3.86		J	MS
7440-70-2	Calcium	20050.00			MS
7440-47-3	Chromium	26.20		J	MS
7440-48-4	Cobalt	6.96		J	MS
7440-50-8	Copper	154.00			MS
7439-89-6	Iron	9570.00			MS
7439-92-1	Lead	240000.00		J	MS
7439-95-4	Magnesium	13500.00			MS
7439-96-5	Manganese	3080.00		J	MS
7439-97-6	Mercury	1.16		J	MS
7440-02-0	Nickel	196.00		J	MS
7440-09-7	Potassium	568.00		J	MS
7782-49-2	Selenium	0.62	B	J	MS
7440-22-4	Silver	7.83		J	MS
7440-23-5	Sodium	1160.00		J	MS
7440-28-0	Thallium	0.61	B		MS
7440-62-2	Vanadium	6.85			MS
7440-66-6	Zinc	244.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

G-3-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil Lab Sample ID: G-3-3

Level: (low/med) Low Date Received: 12/18/08

% Solids: 86.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6304.00			MS
7440-36-0	Antimony	0.03	B		MS
7440-38-2	Arsenic	5.57			MS
7440-39-3	Barium	23.50		J	MS
7440-41-7	Beryllium	0.40	B		MS
7440-43-9	Cadmium	0.13		J	MS
7440-70-2	Calcium	1120.00			MS
7440-47-3	Chromium	41.50		J	MS
7440-48-4	Cobalt	6.28		J	MS
7440-50-8	Copper	25.70			MS
7439-89-6	Iron	15100.00			MS
7439-92-1	Lead	68.90		J	MS
7439-95-4	Magnesium	2610.00			MS
7439-96-5	Manganese	165.00		J	MS
7439-97-6	Mercury	0.08		J	MS
7440-02-0	Nickel	49.30		J	MS
7440-09-7	Potassium	816.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.07	B	J	MS
7440-23-5	Sodium	222.00	B	J	MS
7440-28-0	Thallium	0.16	B		MS
7440-62-2	Vanadium	17.00			MS
7440-66-6	Zinc	57.70		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
LA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

G-5-1

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett1 NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil

Lab Sample ID: G-5-1

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 76.7

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6830.00			MS
7440-36-0	Antimony	5.10	B		MS
7440-38-2	Arsenic	7.71			MS
7440-39-3	Barium	417.00		J	MS
7440-41-7	Beryllium	0.56	B		MS
7440-43-9	Cadmium	1.98		J	MS
7440-70-2	Calcium	62700.00			MS
7440-47-3	Chromium	36.40		J	MS
7440-48-4	Cobalt	9.51		J	MS
7440-50-8	Copper	330.00			MS
7439-89-6	Iron	16100.00			MS
7439-92-1	Lead	31400.00		J	MS
7439-95-4	Magnesium	10100.00			MS
7439-96-5	Manganese	830.00		J	MS
7439-97-6	Mercury	0.66		J	MS
7440-02-0	Nickel	119.00		J	MS
7440-09-7	Potassium	1160.00		J	MS
7782-49-2	Selenium	0.77	U	J	MS
7440-22-4	Silver	0.96	B	J	MS
7440-23-5	Sodium	628.00		J	MS
7440-28-0	Thallium	0.45	B		MS
7440-62-2	Vanadium	23.70			MS
7440-66-6	Zinc	673.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

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EPA SAMPLE NO.

Q-3

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett NRAS No.: SDG No.: E-1-0

Matrix: (soil/water) Soil

Lab Sample ID: Q-3

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 79.1

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.- Analyte	Concentration	C	Q	M
7429-90-5 Aluminum	4270.00			MS
7440-36-0 Antimony	0.60	B		MS
7440-38-2 Arsenic	2.18			MS
7440-39-3 Barium	79.70		J	MS
7440-41-7 Beryllium	0.34	B		MS
7440-43-9 Cadmium	0.35	B	J	MS
7440-70-2 Calcium	20700.00			MS
7440-47-3 Chromium	51.60		J	MS
7440-48-4 Cobalt	5.33		J	MS
7440-50-8 Copper	71.10			MS
7439-89-6 Iron	16100.00			MS
7439-92-1 Lead	578.00		J	MS
7439-95-4 Magnesium	9702.00			MS
7439-96-5 Manganese	243.00		J	MS
7439-97-6 Mercury	0.11		J	MS
7440-02-0 Nickel	49.20		J	MS
7440-09-7 Potassium	922.00		J	MS
7782-49-2 Selenium	0.03	U	J	MS
7440-22-4 Silver	0.17	B	J	MS
7440-23-5 Sodium	715.00		J	MS
7440-28-0 Thallium	0.17	B		MS
7440-62-2 Vanadium	15.30			MS
7440-66-6 Zinc	256.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value

U.S. EPA
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

O-4

Lab Name: U.S. EPA Region 2 Mobile Analytical Laboratory Method: SW846 6020A

Lab Code: R2-MAL Case No.: Jewett Case No.: SDG No.: E-1-0

Matrix: (soil/water) Soil

Lab Sample ID: O-4

Level: (low/med) Low

Date Received: 12/18/08

% Solids: 74.8

Concentration Units ($\mu\text{g/L}$ or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6180.0			MS
7440-36-0	Antimony	1.62	B		MS
7440-38-2	Arsenic	4.14			MS
7440-39-3	Barium	156.00		J	MS
7440-41-7	Beryllium	0.35	B		MS
7440-43-9	Cadmium	0.70		J	MS
7440-70-2	Calcium	23500.00			MS
7440-47-3	Chromium	47.20		J	MS
7440-48-4	Cobalt	8.49		J	MS
7440-50-8	Copper	206.00			MS
7439-89-6	Iron	26200.00			MS
7439-92-1	Lead	682.00		J	MS
7439-95-4	Magnesium	10700.00			MS
7439-96-5	Manganese	365.00		J	MS
7439-97-6	Mercury	0.18		J	MS
7440-02-0	Nickel	55.30		J	MS
7440-09-7	Potassium	1150.00		J	MS
7782-49-2	Selenium	0.03	U	J	MS
7440-22-4	Silver	0.36	B	J	MS
7440-23-5	Sodium	865.00		J	MS
7440-28-0	Thallium	0.16	B		MS
7440-62-2	Vanadium	27.40			MS
7440-66-6	Zinc	933.00		J	MS

Color Before: Brown Clarity Before: N/A - Soil Texture:

Color After: Yellow Clarity After: Clear Artifacts:

B - Detected value < the Contract Required Detection Limit (CRDL)

U - Undetected value < the Instrument Detection Limit (IDL)

J - Estimated concentration due to data validation criteria.

R - Rejected Value